

RG 104, Sequence 171

8NS-104-95-171, Miscellaneous
Correspondence, working papers,
reports, studies & photographs of the
“U.S. Mint Site Selection,” 1970 - 1979.

RG 104

FY 09

UNITED STATES MINT
Denver Colorado

Architectural site plans for "New Denver Mint"
Misc. Correspondence, Working Papers, Reports,
Studies and Photographs for "US Mint Site Selection"
1970-1979

OLD FRC 104-89-0005

8NS 104-95-171

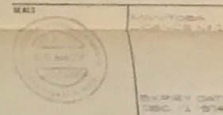
Box 5

Whinnipeg munit - Canada file



REVISIONS			
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REVISIONS			
NO.	DESCRIPTION	DATE	BY



THE WINNIPEG MINT
FOR THE ROYAL CANADIAN MINT

PROJECT ARCHITECTS
NUMBER TEN ARCHITECTURAL GROUP
1000 BROADVIEW AVENUE, SUITE 100, WINNIPEG, MANITOBA R4M 1A1

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STRUCTURAL CONSULTANTS
CHRYSLER ENGINEERING & PARTNERS
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METALLURGY CONSULTANTS
MONTAGNE METALLURGICAL & ASSOCIATES
200 LAMBTON STREET, WINNIPEG, MANITOBA R4S 1A1

ELECTRICAL CONSULTANTS
A.E. BURTON AND ASSOCIATES
200 LAMBTON STREET, WINNIPEG, MANITOBA R4S 1A1

PROCESS ENGINEERS
ACRES ENGINEERING SERVICES LTD.
1000 BROADVIEW AVENUE, SUITE 100, WINNIPEG, MANITOBA R4M 1A1

PROJECT MANAGER
SPATCO LIMITED
1000 BROADVIEW AVENUE, SUITE 100, WINNIPEG, MANITOBA R4M 1A1

APPROVALS
[Signature]
12/1/74

SHEET TITLE
**PROCESS EQUIPMENT
GENERAL ARRANGEMENT
QUADRANT 'A'**

SCALE
1/4" = 1'-0"

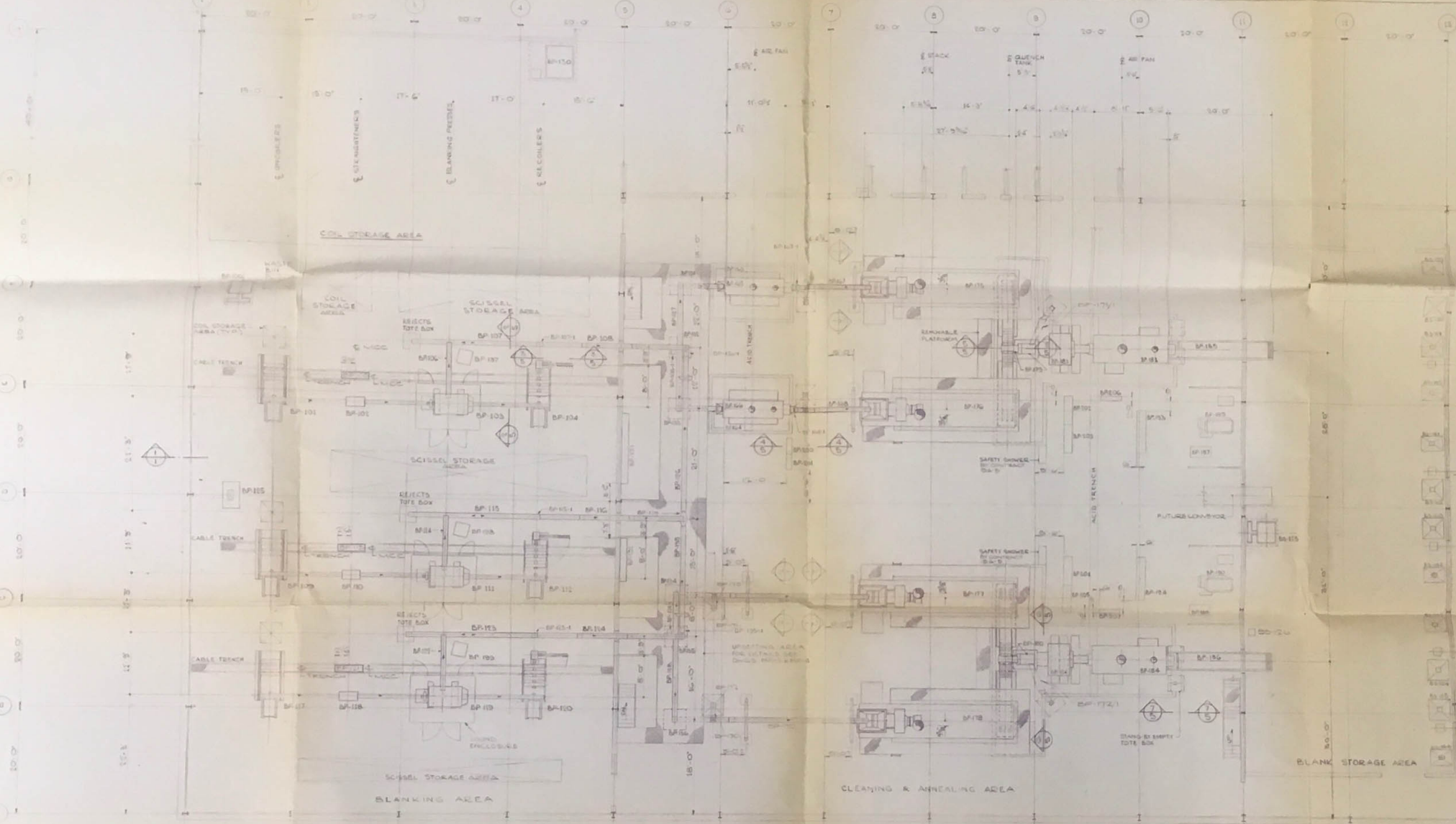
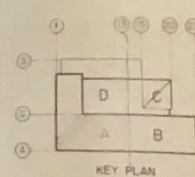
PROJECT NO.
12-092-01

DRAWN
H. BURTON

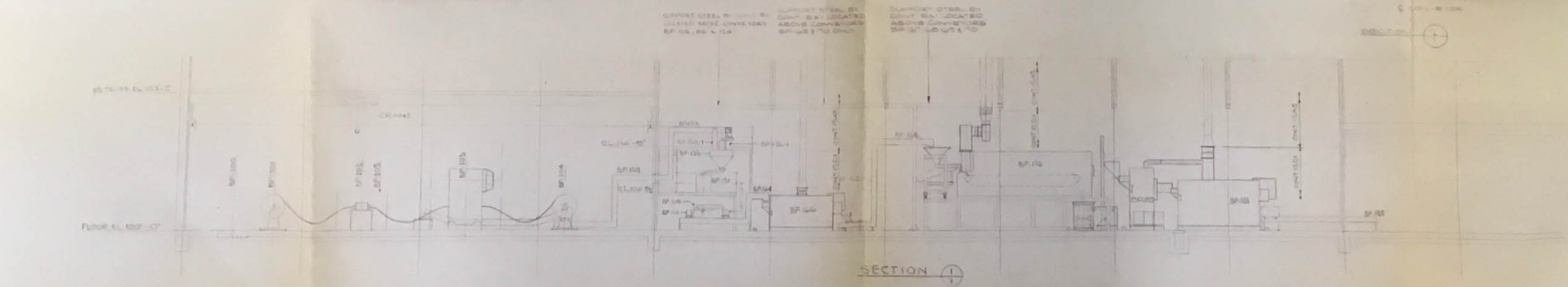
CHECKED
H. BURTON

DATE
1-1-74

SHEET NO. REV. NO.
MP-1



PLAN



SECTION 1-1



A conveyor system transports blanks from one operation to the next.

RIMMING

A rim is formed to protect the designs and allow finished coins to be stacked face to face.

ANNEALING

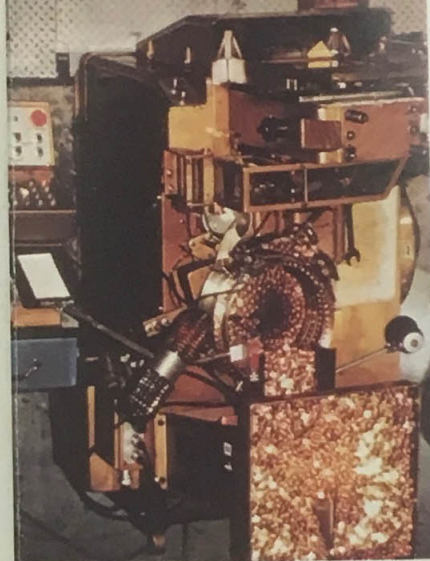
To permit an easy flow of material in the coining presses and to protect the life of dies, blanks are annealed in furnaces where the heat can be as high as 1500°F

COINING

32 presses transform blanks into coin of the realm. Presses operate at a speed of 300 strokes per minute.

COUNTING

Coins are counted and bagged in preset quantities. Bags are sealed and placed in a vault awaiting shipment.



Un convoyeur transporte les flans d'une opération à l'autre.



CORDONNAGE

On donne un bord mince aux flans. On protège ainsi le dessin du flan et on peut facilement les empiler.

RECUIT

Les flans sont amollis dans des fourneaux où la température peut atteindre 1500°F. Cette opération aide à la transformation du métal et à la protection des coins.

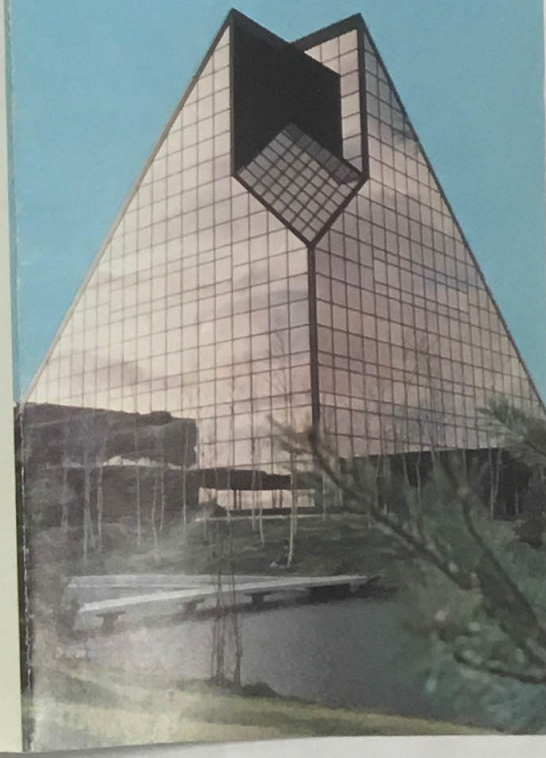
LA FRAPPE

Trente deux presses transforment des flans en pièces de monnaie. Ces machines opèrent à une vitesse de 300 coups à la minute.

COMPTAGE

Les pièces sont comptées et placées en quantité requise dans un sac. Une étiquette fixée par un plomb spécial y est apposée et le sac est placé dans une voûte jusqu'à la distribution.

Royal Canadian Mint Monnaie royale canadienne
WINNIPEG



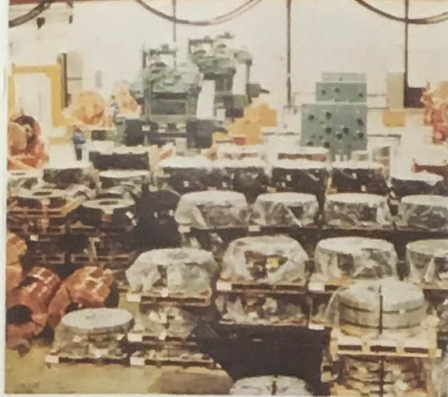
The Winnipeg Mint is a branch of the Royal Canadian Mint

It is the most modern Mint in the world, and has been designed so that the general public will be able to see the "magic" of money making.



La Monnaie de Winnipeg est une succursale de la Monnaie royale canadienne.

Elle est l'une des plus modernes au monde, et a été conçue de façon à ce que le public puisse suivre le procédé de fabrication de la monnaie.



Raw material in coils measures 4 feet in diameter, 8 inches wide and weighs 4,000 pounds. One coil can produce 660,000 blanks of 10 cents.



a

Le matériel brut en forme de lames enroulées mesure 4 pieds de diamètre, 8 pouces de largeur et pèse 4,000 livres. Une bobine peut produire 660,000 flans de dix cents.

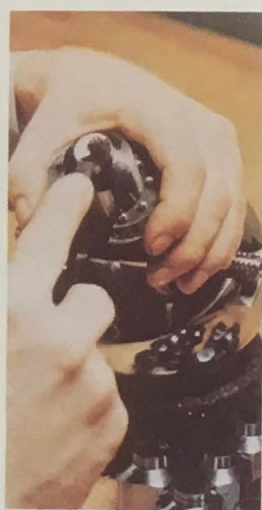
POINÇON ET COIN

Voici trois étapes de production

- les barres de fer sont coupées
- l'empreinte du poinçon est transférée au coin
- le coin est poli



b



c

PUNCH & DIE

Three stages showing the production of a punch and a die

- steel bars are cut
- Imprints of the master punch are transferred to the die
- die polishing

BLANKING

150-ton presses striking 400 blows per minute, can produce 9600 blanks, one press can process one coil in one hour.



DÉCOUPAGE

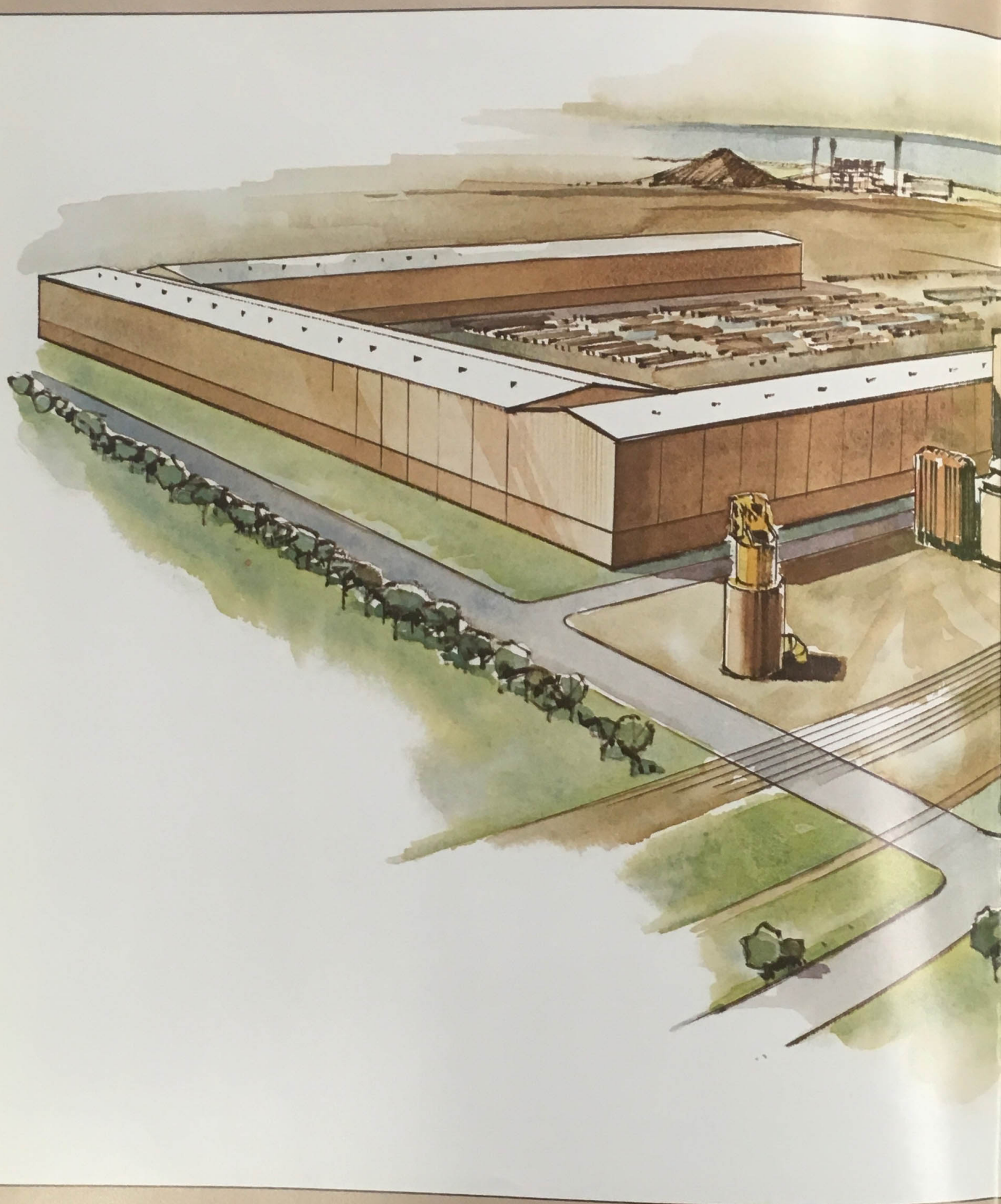
Des presses de 150 tonnes frappent 400 coups à la minute et produisent 9600 flans. Une presse peut découper une bobine à l'heure.



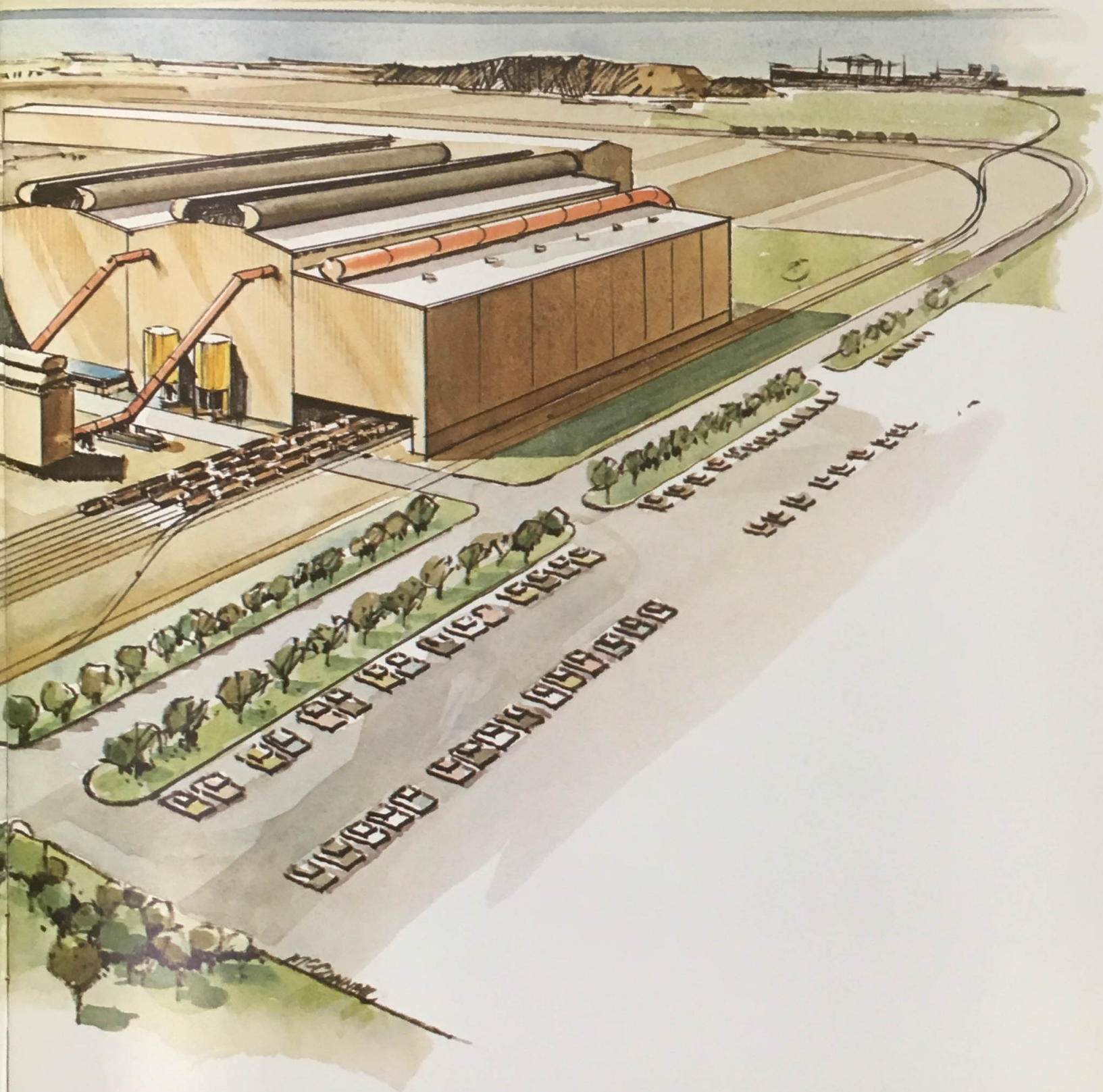


MODUMILL[®]





MODUMILL[®]



ACRES has developed the design of a small, integrated steel mill which can be built in a series of complementary modules.

Each module is a miniproduction unit with a marketable end product. Because of its unitized construction, it offers a variety of options for future expansion.

The plant and equipment used are provided by manufacturers with a high reputation in the steel industry. With the backing of the vast engineering and financial resources of the Acres organization, **Modumill** offers an entry into steel production at low cost.

Because there is an increasing world demand for steel, not all of which can be profitably produced in the big integrated mills. It's modular design offers the flexibility of operation best suited to local markets. It does not require a major capital investment to start.

Modumill is designed for production of between 100,000 to 300,000 tons per year. Options can be built in to increase this to 500,000 tons per year.

Modumill does not follow the traditional integrated steel plant design. It employs few of the processes which involve expensive pollution controls. This makes it an acceptable proposition in areas where new industries are encouraged, and where the environment must be preserved.

The individual or combined module costs will vary, depending on product size, degree of sophistication of equipment, climate, eventual throughput tonnages required and environmental control.

New steel plant investment is frequently measured in terms of dollars per annual ton of capacity. Because of the scale of **Modumill**, the capital cost is usually about one quarter of that for the large integrated steel plant.

BENEFITS OF PROPOSAL

If we consider this sort of project as a low-profile entry into the steelmaking community, the specific advantages to the owner are:

- a commitment of capital resources compatible with the regional economy
- low-volume throughput which does not spell disaster if the market weakens
- maximum flexibility in product mix, probable in the merchant mill range
- an opportunity to train labor with a gradual build-up of a skilled labor force
- a plant in which labor intensity and capital investment can be varied to suit local conditions
- a relatively short construction and commissioning period
- an opportunity to take advantage of developing technology as each succeeding module is considered.

CONDITIONS WHICH FAVOR MODUMILL

- a market potential of between 100,000 and 500,000 tons per year of steel products
- an attractive business climate in a community with strong assets
- an available skilled labor force
- a suitable land site for a steel complex
- available scrap and raw materials
- large quantities of fresh water
- available utilities
- available transportation facilities

OPTIONS OF MODUMILL

All designs offered can be added to an EXISTING OPERATION, as well as being suitable for green-field development.

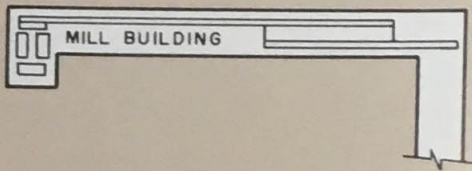
The basic designs offered are Rolling, Steelmaking and Direct Reduction. All designs have built-in planned expansion of the individual module considered, as well as a designed tie to future additions.

A TYPICAL EXAMPLE OF THE MODUMILL CONCEPT

Scheme 1

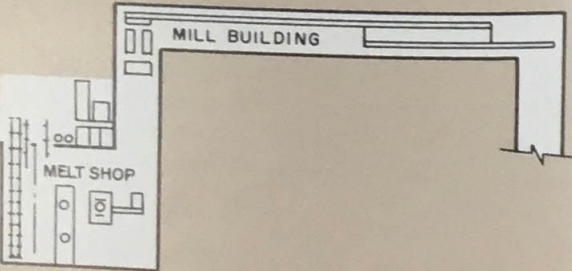
For purposes of illustration, the development mode of the following Scheme 1 assumes a start from a bar mill products market, working back to raw steel.

Module 1



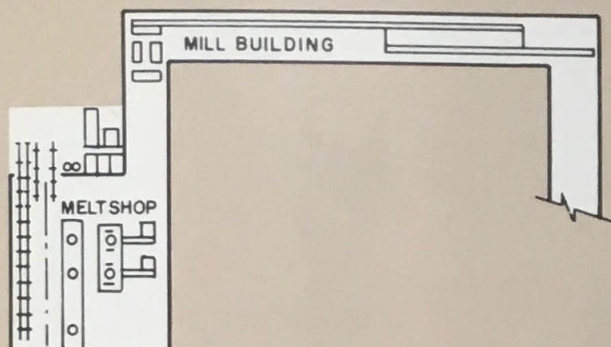
This is a low-volume bar mill with an initial capacity of 150,000 tons per year, which is readily expandable to 300,000 tons per year at minimal additional capital cost. The feedstock is small section billets purchased from raw steel producers. These billets are reheated and rolled into reinforcing bars, small rods and light structural sections.

Module 2



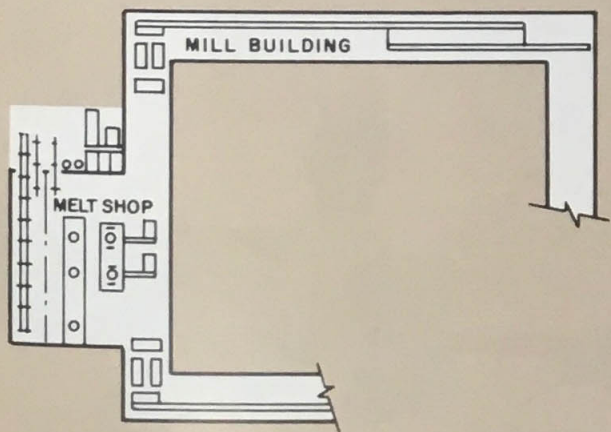
Module 2 is added. This consists of electric furnaces and a continuous casting machine producing billets for use in the bar mill operation. Feedstock is scrap steel from local sources.

Module 3



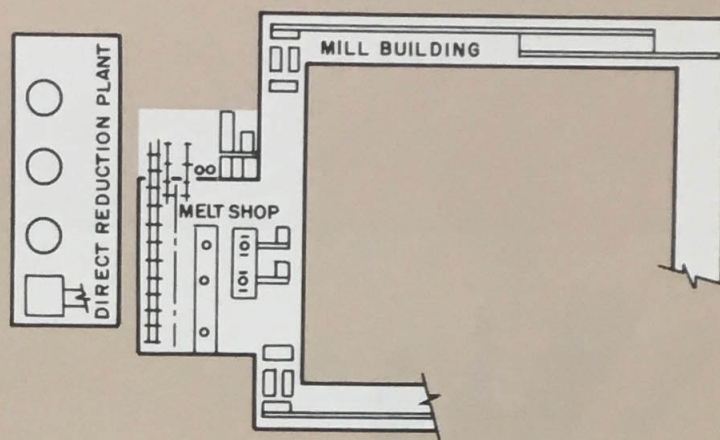
Increased steelmaking capacity is added as the market grows. The bar mill has been expanded to its capacity and billets are available for sale to other rolling mills.

Module 4



This module consist of installation of further production units to finish greater volumes of billet or slab steel. End product from the second mill might include heavy sections, pipe skelp plate or sheets, depending on the market demand.

Module 5



Addition of a direct reduction plant to the steel mill complex produces an alternative raw material to scrap at considerably cheaper cost, along with the development of local ore resources. The traditional blast furnace is not economical in small growth increments, and environmental control is far more satisfactory with this method.

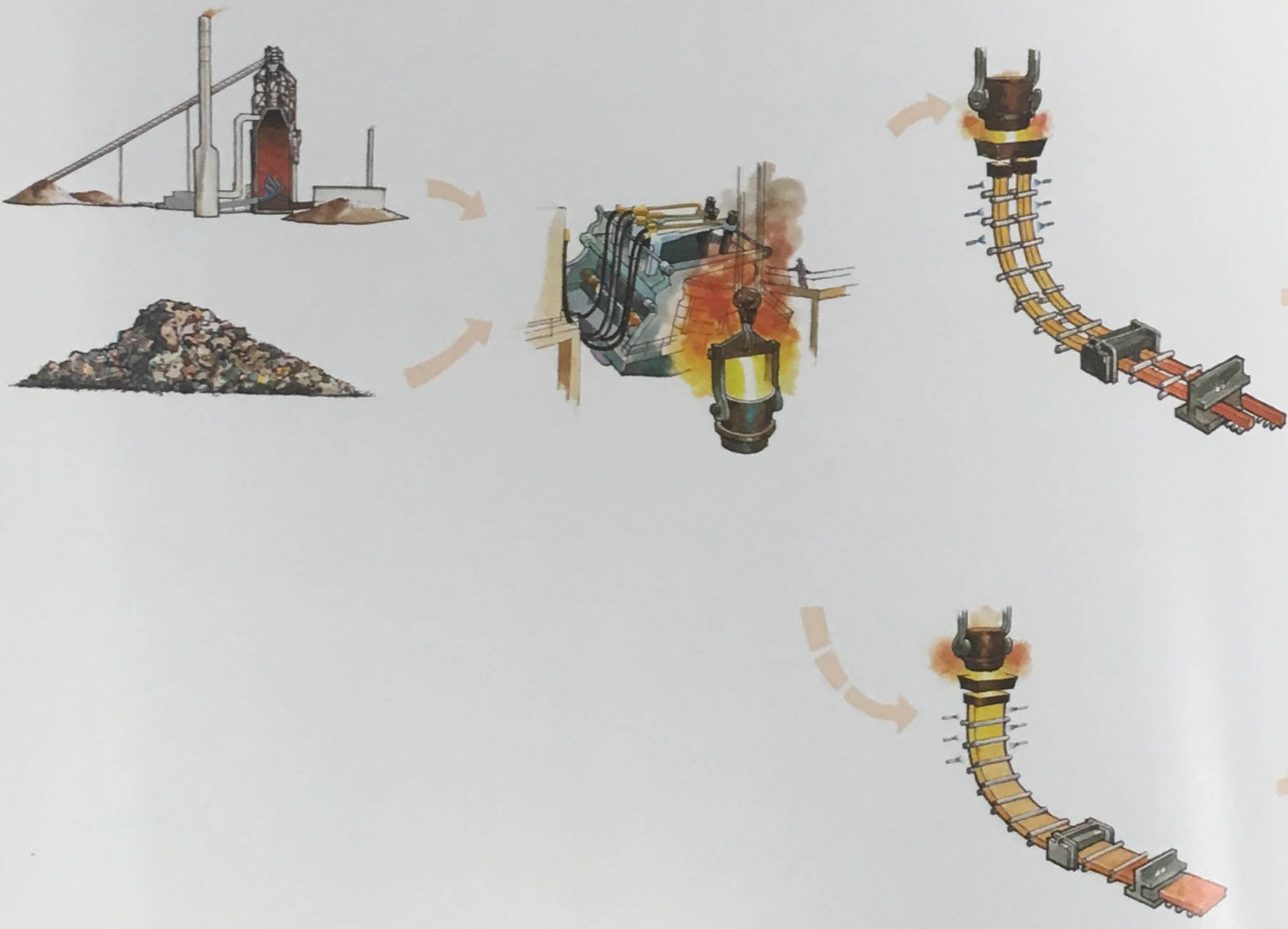
Additional design options are illustrated as schemes 2 and 3 (see last page). The **Modumill** concept is readily adaptable to specific site conditions.

ACTION NEEDED TO DEVELOP THE CONCEPT FOR A SPECIFIC REGION AND MARKET

Before a general concept such as this can be fully assessed, it must be studied in terms of a specific region and specific market.

The essential elements of the concept development and assessment are: market studies, conceptual technical studies and financial projections. The studies should be developed on a task force basis between the consultant and the owner.

Modumill Steel Plant Flow Sheet



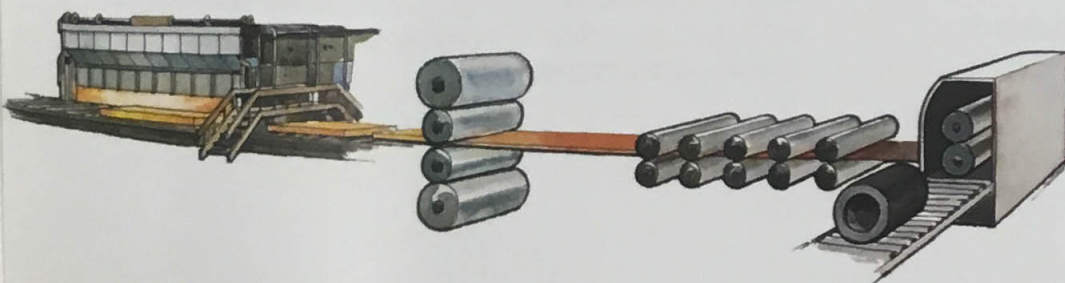
Direct Reduction Plant

Electric Furnace Steelmaking

Billet Caster

Scrap

Slab Caster



Reheat Furnace and Bar Mill

Reheat Furnace and Slab Mill

Rods
Small Sections
Reinforcing Bar

Sheets
Pipe Skelp
Plate

EXPERIENCE

For over 25 years Acres has provided consulting services to metallurgical industries. These services include:

- market surveys to establish product acceptance and sales volume
- regional planning, site investigation, and evaluation
- economic studies and planning
- technical and engineering studies
- exploration, determination of ore grades, tonnages and reserves
- rock and soil mechanics investigations in field and laboratory
- environmental studies
- selection of steelmaking process equipment
- preparation of process flow sheets, and layout designs for buildings, equipment and services
- preliminary and detail engineering
- specification and contract document preparation, tender evaluation, procurement, inspection and expediting of equipment and materials
- cost estimating, accounting and budget control
- construction schedule monitoring and control

CONSTRUCTION MANAGEMENT

Acres provides a field manager and construction team to manage, supervise and administer all contracts for construction and related work performed by contractors and subcontractors.

Inspection and monitoring of contractors' and subcontractors' work is continuously performed through to commissioning.

All temporary offices and facilities for the storage and warehousing of material and equipment are arranged for and maintained.

Surveying services are provided for the general layout of the facility, equipment and structures, and for the maintenance of dimensional control of the construction work.

Construction schedules and cost control procedures are prepared and maintained.

Acres labor relations personnel provide co-ordination with all concerned design teams and labor bodies. Site and safety regulations are initiated and enforced.

COMMISSIONING AND OPERATION

Acres provides full commissioning services for the client, and has several agreements with established steel companies to provide comprehensive operations expertise and training. These management and operating specialists will remain until the local staff is capable of running the operation efficiently.

PROVEN EQUIPMENT

All equipment specified for **Modumill** is proven steel mill equipment from reputable and reliable manufacturers.

SHORT CONSTRUCTION PERIOD

The standardization of layouts and equipment allows for a relatively short construction period. Acres **Modumill** concepts offers a total package, and liaison between functions is not a problem. A realistic time interval between contract signing and commissioning is 18 to 24 months.

LOCAL PARTICIPATION

Technological advances in steel production have made possible the flexibility of the small mill - flexibility in securing raw materials, in operation, marketing, servicing customers, and in coping with local situations. Local steel mills use local raw materials and local works to serve the local market. Owners may be large corporations, small concerns, stock companies, or individuals.

LOCAL MATERIALS

Acres **Modumill** is not unduly influenced by traditional building materials for steel plants. A wide range of optional materials has been included in the design.

FINANCING

Acres offers a complete financing package to prospective clients.

SPECIFIC LAYOUTS AND COSTS

Detailed layouts and costs are available. We would be pleased to discuss your project in more specific terms.

Please contact :

The General Manager
Metals And Heavy Industrial Group
ACRES CONSULTING SERVICES LIMITED
5259 Dorchester Road
Niagara Falls, Canada
L2E 6N8

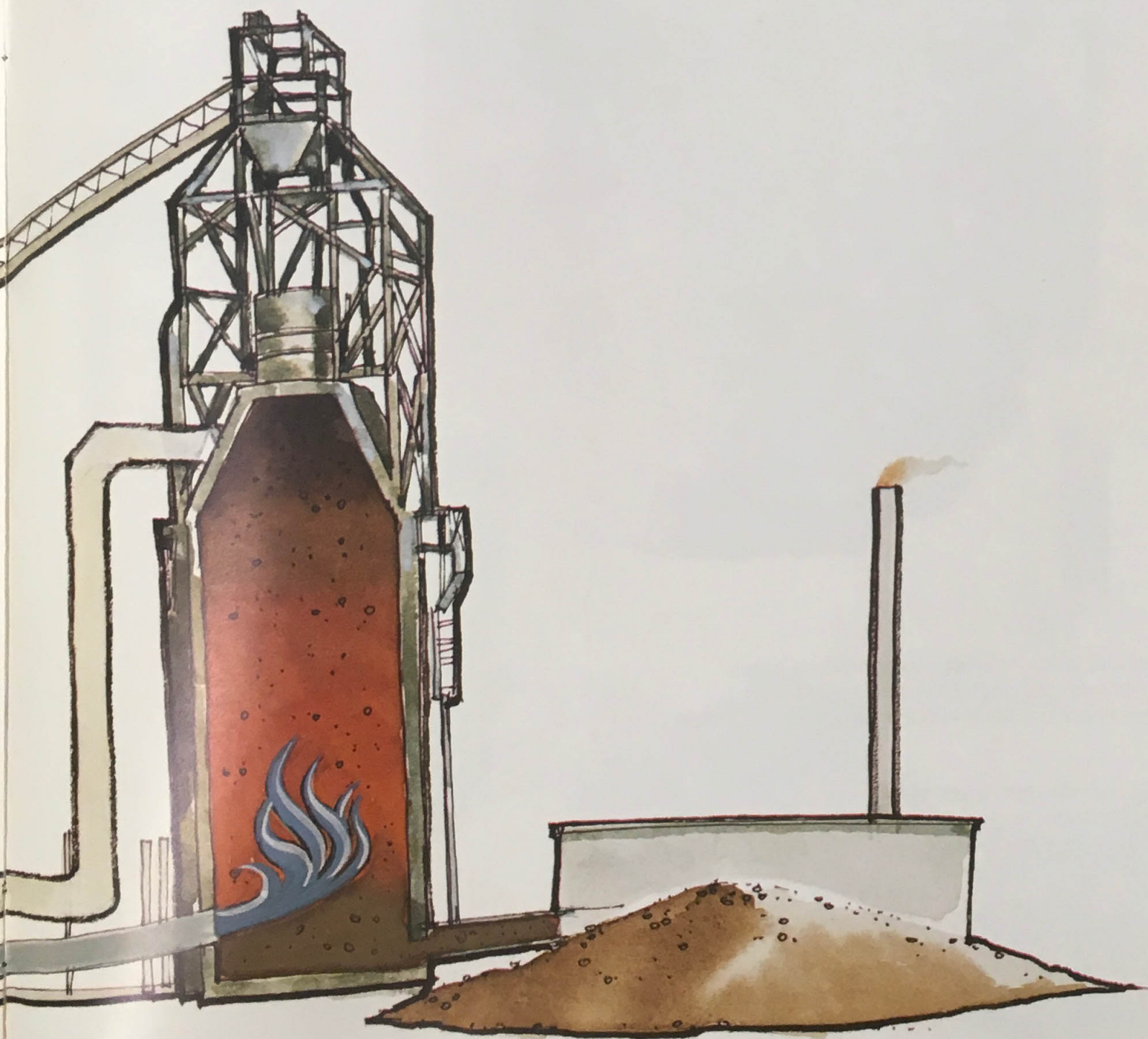
Direct Reduction Process

Prerduced iron ore pellets or concentrates can be further deoxidized in the solid state by a variety of processes and fuels to produce a highly metallized product suitable for electric arc steelmaking charges. These processes offer an alternative raw material to scrap.

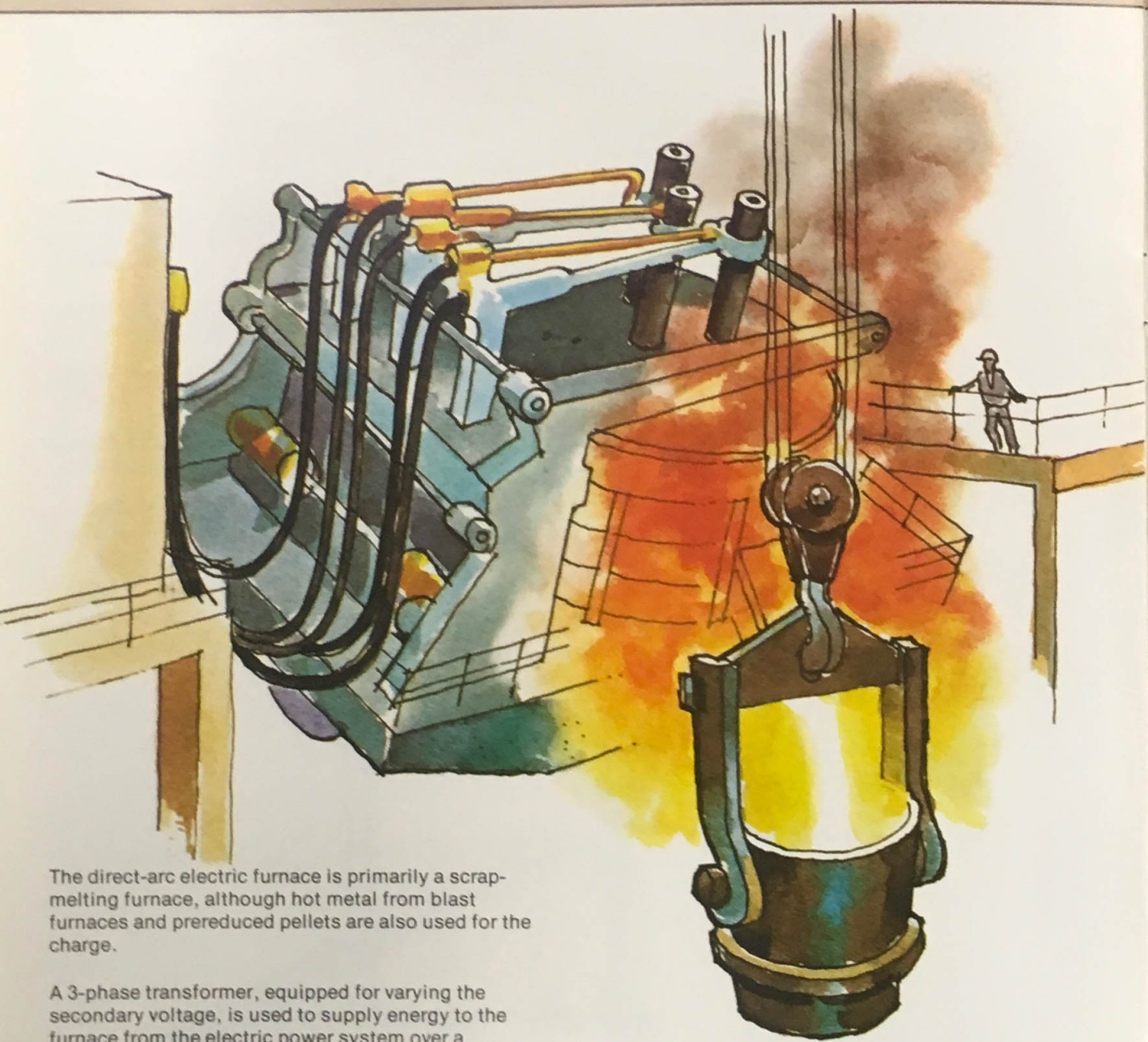
As an alternative to the traditional iron-making processes, direct reduction offers the following advantages:

- small incremental steps of annual capacity starting around 200,000 net tons per year
- a much lower capital investment per ton of iron produced
- a wider choice of fuels and reductants, and independence of the availability of good coking coals
- an alternative or complementary material to scrap, providing a price stabilizing influence on the latter.





Electric furnace



The direct-arc electric furnace is primarily a scrap-melting furnace, although hot metal from blast furnaces and prereduced pellets are also used for the charge.

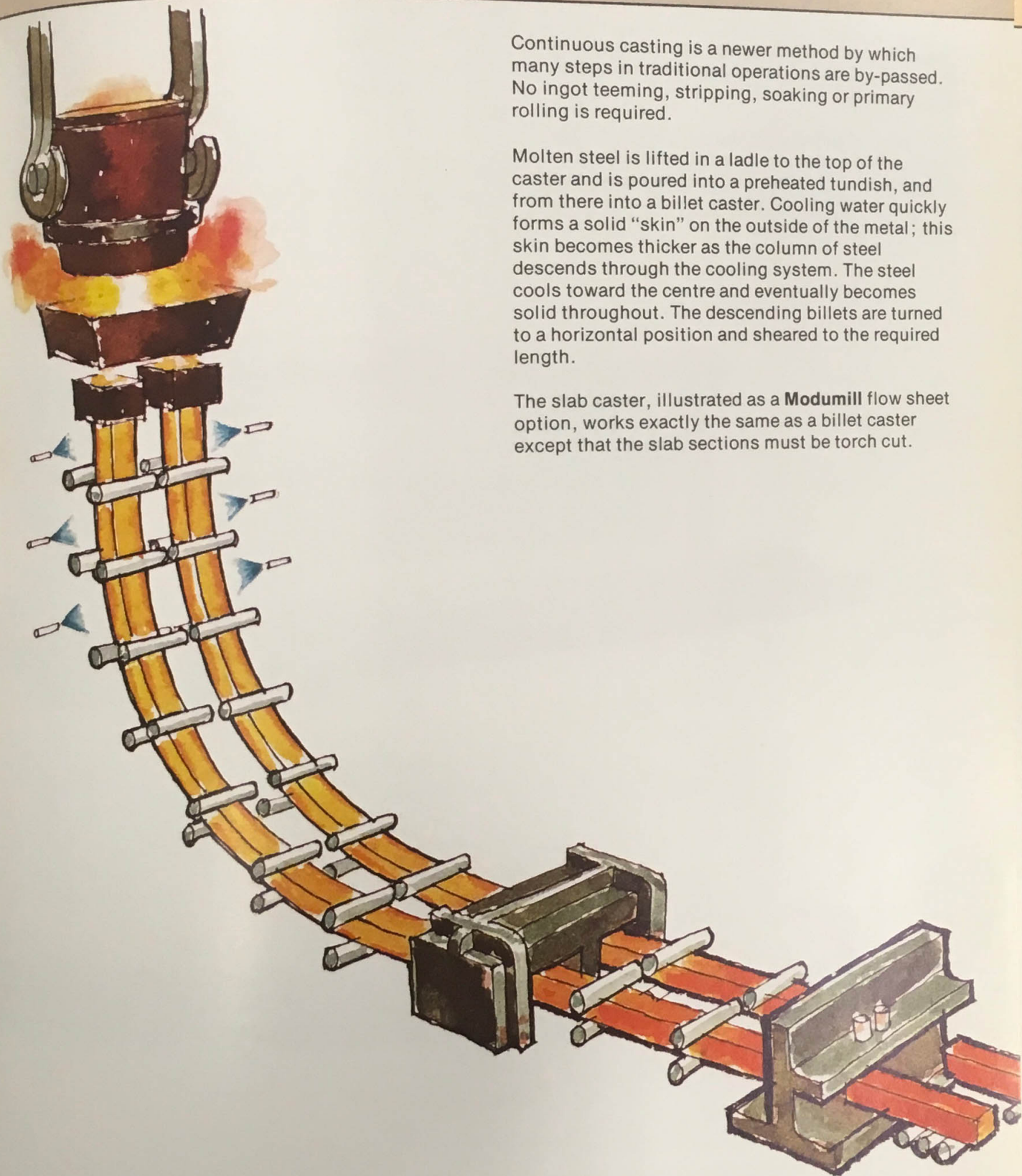
A 3-phase transformer, equipped for varying the secondary voltage, is used to supply energy to the furnace from the electric power system over a suitable range of power levels. Cylindrical, solid graphite electrodes, suspended from above the shell and extending down through ports in the furnace roof, are used to conduct the electric current inside the furnace shell. When all the charge materials have been melted and the required chemistry is attained, the "heat" of steel is tapped into a refractory-lined ladle.

Continuous Casting

Continuous casting is a newer method by which many steps in traditional operations are by-passed. No ingot teeming, stripping, soaking or primary rolling is required.

Molten steel is lifted in a ladle to the top of the caster and is poured into a preheated tundish, and from there into a billet caster. Cooling water quickly forms a solid "skin" on the outside of the metal; this skin becomes thicker as the column of steel descends through the cooling system. The steel cools toward the centre and eventually becomes solid throughout. The descending billets are turned to a horizontal position and sheared to the required length.

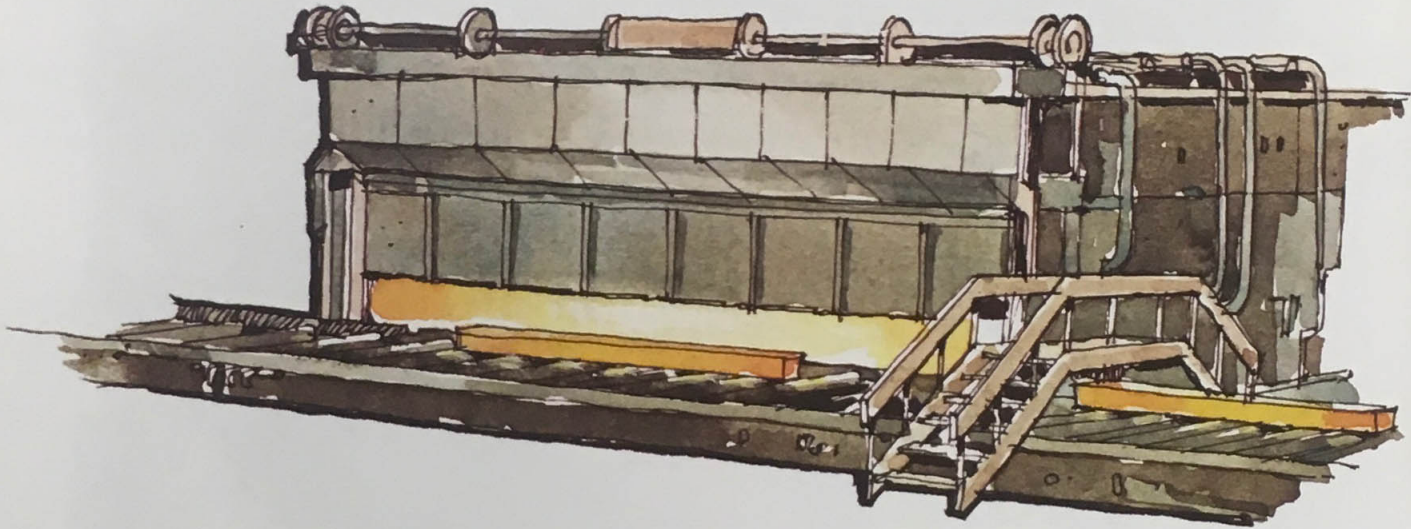
The slab caster, illustrated as a **Modumill** flow sheet option, works exactly the same as a billet caster except that the slab sections must be torch cut.



Reheat furnace

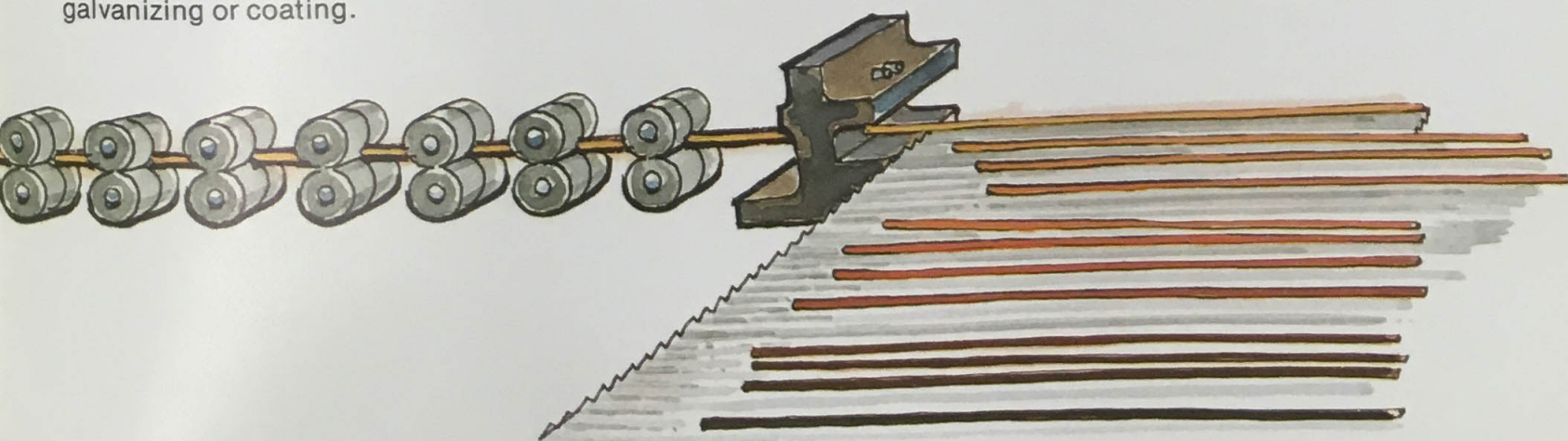
The feedstock for a reheat furnace is a continuously cast billet or slab which has been cut to suitable handling length.

The billet or slab is loaded into an oil-or-gas-fired furnace which gradually heats it to rolling temperatures. At the exit end of the furnace, the hot steel is discharged onto a roller table for conveyance to the rolling mill stands.

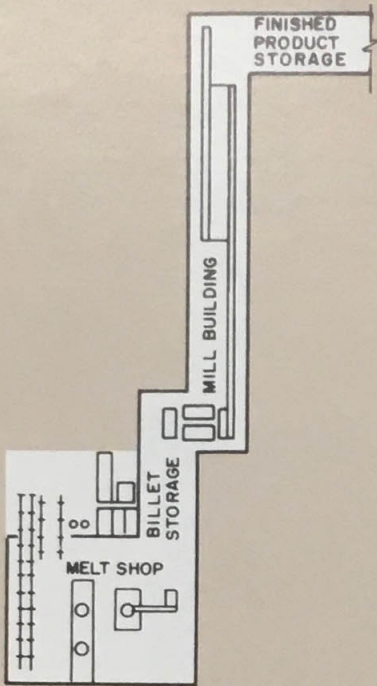


In passing through a series of roll stands at controlled speeds, the billet is hot worked (reduction in section with consequent elongation) to finish bar sizes. After passing through the final roll stand, the bars are sheared and allowed to cool on a specially designed cooling bed. The cool bars are then sheared to customer length and stored in an adjacent area for shipping.

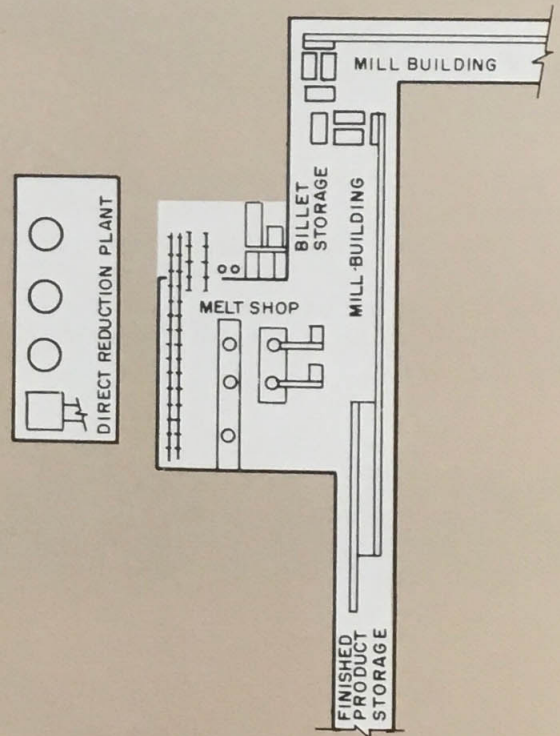
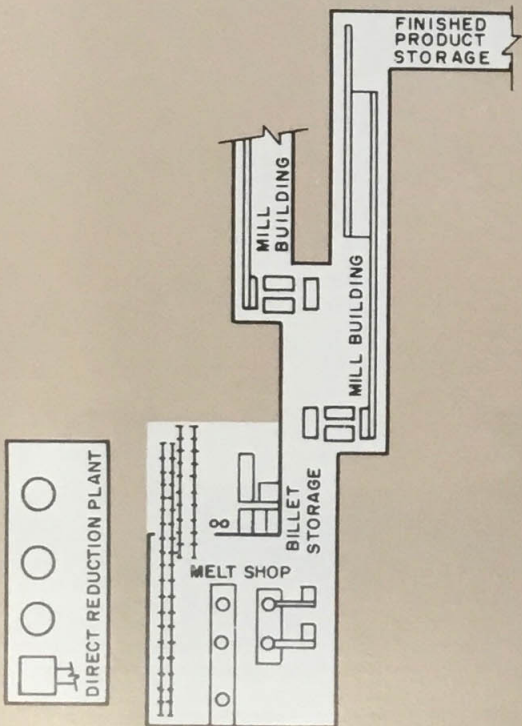
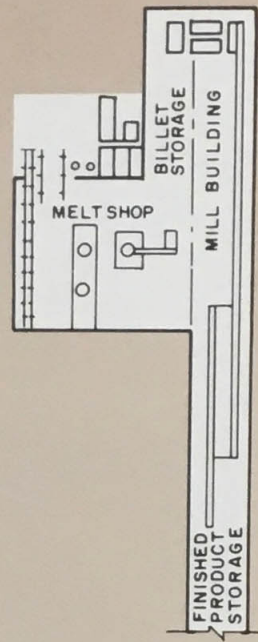
For a slab mill, which has been shown as a **Modumill** flow sheet option, the rolling process is essentially the same in that a hot slab passes through a series of much larger roll stands. A difference is that the flat, rolled products end up as steel coils. Certain coils require further operation such as drawing, galvanizing or coating.



Scheme 2

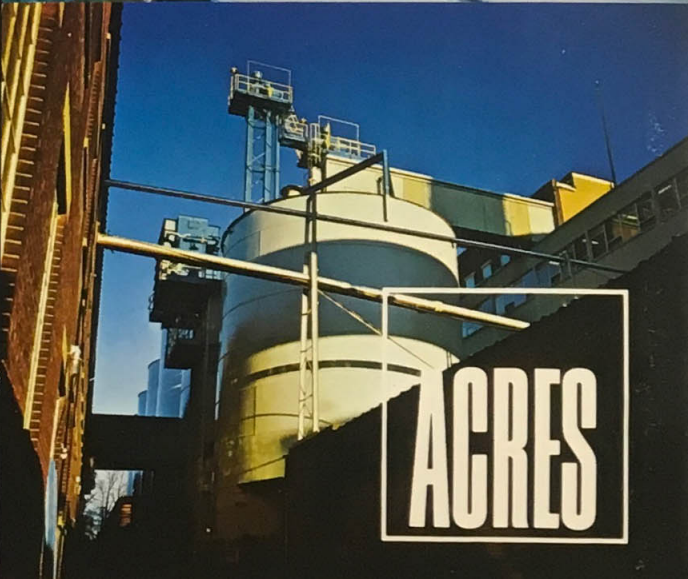
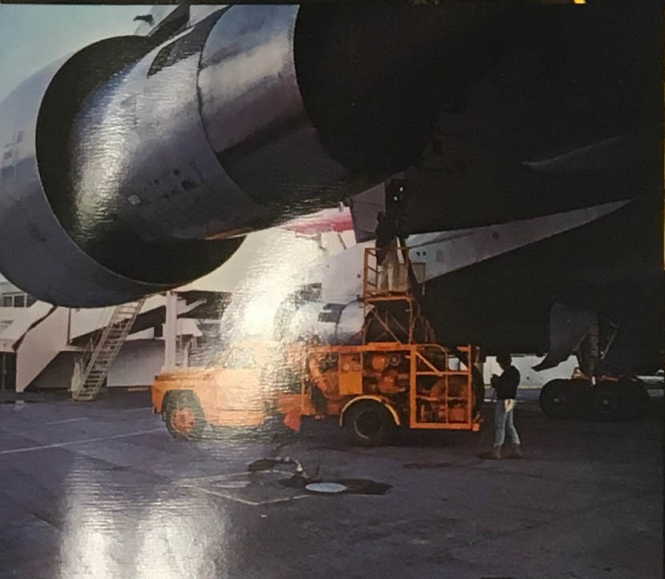
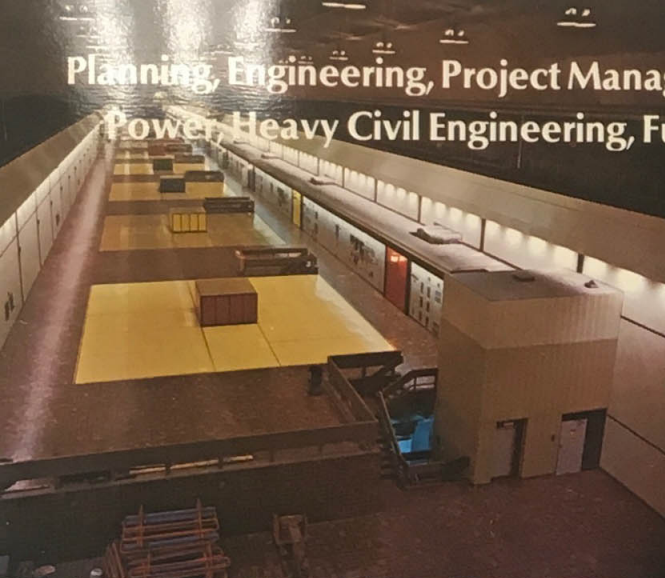


Scheme 3





Planning, Engineering, Project Management And Professional Services In Power, Heavy Civil Engineering, Fuels, Industrial, Metals And Mining



ACRES



CANADA

ACRES CONSULTING SERVICES LIMITED

Vancouver
Calgary
Winnipeg

Toronto
Burlington
Niagara Falls

Montreal
Halifax
Sydney

INTERNATIONAL

ACRES INTERNATIONAL LIMITED

Baghdad, Iraq

Rio de Janeiro, Brazil

London, U.K.

UNITED STATES

ACRES AMERICAN INCORPORATED

Buffalo
Washington, D.C.

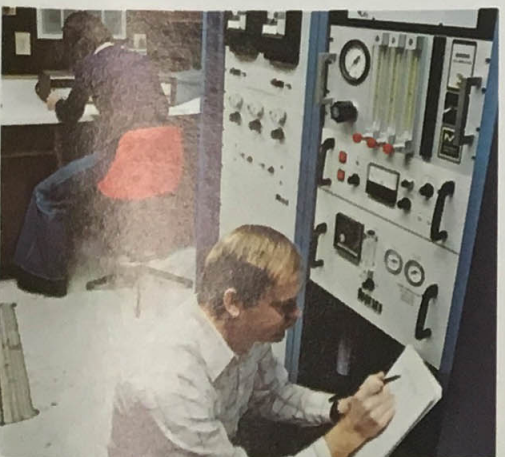
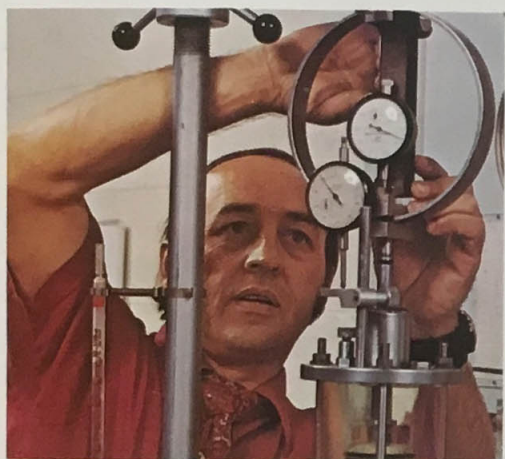
Pittsburgh

Raleigh

ASSOCIATE COMPANIES

Acres Shawinigan Limited, Toronto
Brascep S.A., Rio de Janeiro
CIPM Canadian International
Project Managers Ltd., Montreal
Crippen Acres Limited, Winnipeg

Houser and Carafas Engineering
Company, Pittsburgh
Northcan Engineering Management
Ltd., Calgary



Our Services

Acres is a major international consulting organization which is active in many diversified fields of planning, engineering and project management. These fields include:

Power and Heavy Civil Engineering

- Bridges, tunnels and subways
- Electrical power systems
- Energy storage systems
- Foundations
- Marine structures
- Hydraulic structures and dams
- Hydro-electric power
- Municipal works
- Thermal and nuclear power
- Transmission switching and distribution
- Transportation services
- Underground engineering
- Other related areas

Fuels and Industrial

- Chemicals and fibres
- Food processing
- Fuels, pipelines and storage systems
- Industrial and process plant off-sites
- Industrial water and waste treatment
- Institutional plant facilities
- Manufacturing
- Oil and gas processing
- Petrochemicals and fertilizers
- Pulp, paper and sawmills
- Underground works
- Other related areas



...Our Services

Metals and Mining

- Aggregate and cement plants
- Coal mining and processing
- Electric furnace plants
- Foundries and casting plants
- Iron and steel
- Mineral processing
- Mining, open pit and underground
- Minting and coining
- Non-ferrous metals
- Primary manufacturing plants
- Uranium processing
- Other related areas

Special Services

- Air quality monitoring
- Biological laboratory testing
- Chemical laboratory testing
- Computer services
- Economics and planning
- Environmental assessment
- Geotechnical services
- Hydraulic laboratory testing
- Inspection
- Operations research
- Project management
- Research and development
- Special engineering studies
- Other related services

The end results of projects on which Acres provides consulting services have enormous impact upon industry, the overall economy and our lives in general. Steel for construction projects and automobiles, crushed rock for highway construction, uranium and coal for power generation and basic metals for industrial and consumer products provide excellent examples from the areas of Metals and Mining. . . .

Acres' services range from studies, planning and engineering to construction management, project management, scheduling, inspection and expediting plus design/construct work on projects where the Company accepts responsibility for the actual construction work.





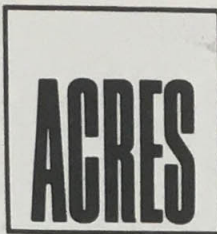
Our Qualifications

Acres is a company of people; skillful, imaginative, innovative and resourceful people representing a wide spectrum of education backgrounds and experience profiles. But in today's world of sophisticated methods of technology, it is not enough just to have the very best people. They must be backed by in-depth resources, excellent general facilities and laboratories and a solid history of relevant experience.

In terms of size and capability, Acres has the people and the resources to handle the overall consulting, and engineering task for the largest Canadian or international development and construction programs. In terms of general facilities, the Company's engineering offices, computer and other facilities rank with the best in the consulting business. Further, Acres modern laboratory facilities are fully equipped for physical modeling to scale; soil and rock mechanics testing; hydraulic, aerodynamic, civil and architectural design evaluation; biological laboratory services; and chemical and physical analysis of solids, liquids and gases. As for a solid background of experience, Acres has a history of over 50 years of consulting on hundreds of major projects in Canada and throughout the world.

Electrical power for economic growth, industrial development and human comfort, bridges and tunnels which facilitate vital road transportation and fuels to heat our office buildings and our homes represent examples from the areas of Power, Heavy Civil Engineering and Fuels. . . .





Our Organization

Acres is privately owned by members of the staff engaged directly in the day to day activities of the Company.

Acres' services are focused on distinct technology-oriented fields of activity through the four major groups into which the Company is organized. These groups are supported by a well-balanced assembly of technical departments and project services.

In total, Acres' staff numbers over 1200. In Canada, permanent offices are located in Vancouver, Calgary, Winnipeg, Toronto, Burlington, Montreal, Halifax and Niagara Falls. In the U.S.A., Acres American Incorporated has engineering offices in Buffalo, N.Y., Washington, D.C., Raleigh, N.C. and Pittsburgh, Pa. Around the world, Acres International Limited project offices are located in numerous countries. Economic consulting services in the agricultural, industrial, business, transportation, resource and energy fields are provided through Hedlin, Menzies & Associates Ltd. In certain instances, Acres Consulting Services Limited also acts in joint venture with others in order to provide comprehensive services or to undertake particularly large or special projects.

Food from highly-automated processing plants, long-range agricultural planning from in-depth study programs, a cleaner environment from industrial water and effluent treatment plants and more enjoyable leisure hours from carefully planned and developed recreational facilities are just a few examples from the areas of Industrial and Special Services.



1[a]



1[b]



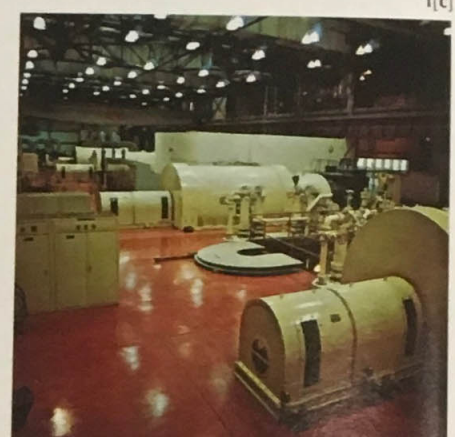
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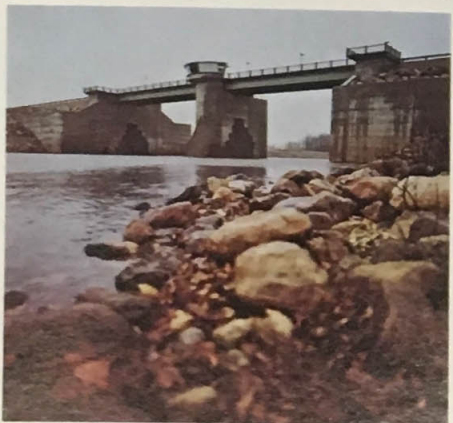
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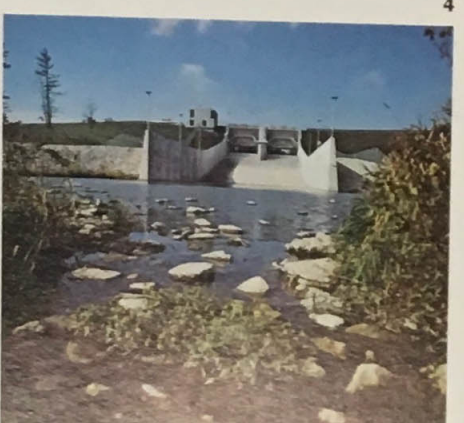
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10[a]



12



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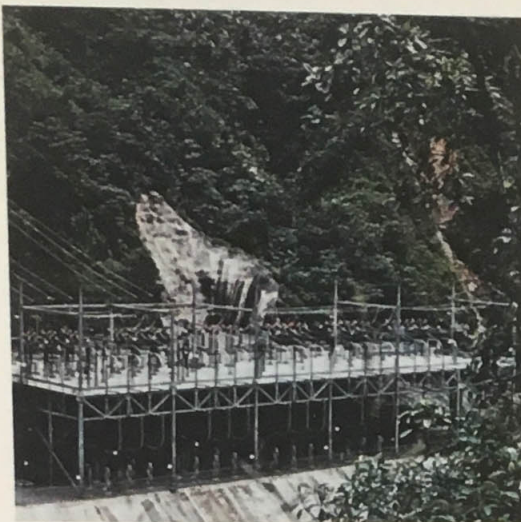


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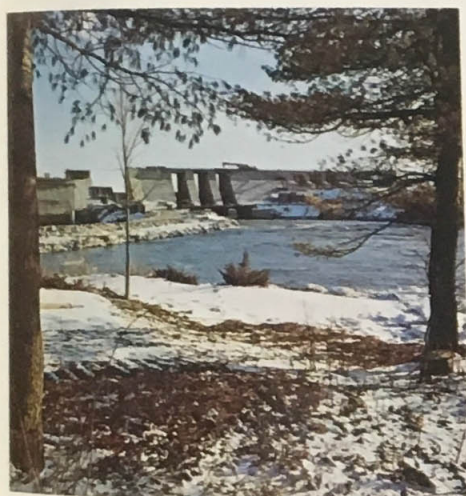
Some of Our Projects in Power and Heavy Civil Engineering



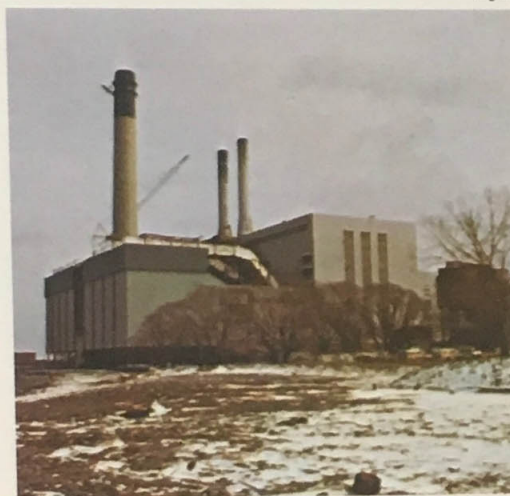
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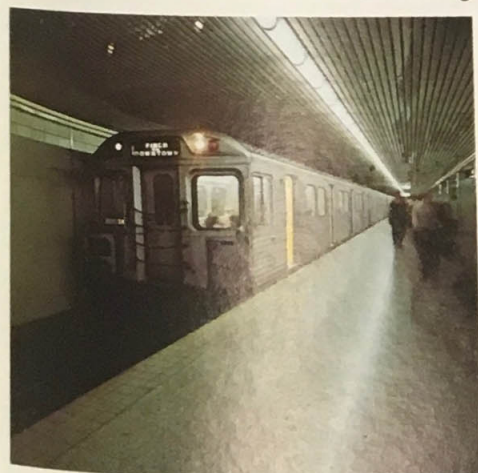
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6



7



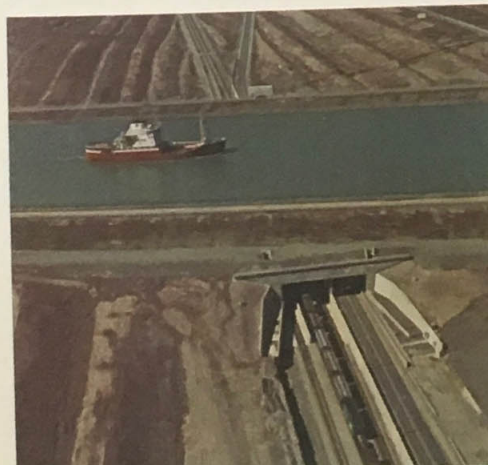
10[b]



11



15



16

1. Engineering and construction management, in joint venture, for the world's largest underground hydro-electric power plant at Churchill Falls, Labrador: [a] entrance to the mile long access tunnel; [b] the 5,225,000 KW powerhouse; [c] 735,000 KV transmission lines crossing the Churchill River.
2. Alto Anchicaya, Colombia: [a] the world's highest concrete faced rock fill dam; [b] specially-designed two-level switching station.
3. Long Spruce Generating Station in Northern Manitoba.
4. Engineering and construction supervision, Ontario Hydro's first thermal generating station — J. Clark Keith — Windsor, Ontario.
5. Brandon Thermal Generating Station for Manitoba Hydro.
6. Overall project management and engineering for the Arnprior Hydro-Electric Generating Station, Arnprior, Ontario.
7. Electrostatic precipitator "retrofit", Dunkirk Generating Plant, Niagara Mohawk Power Corporation, Dunkirk, N.Y.
8. Inlet and outlet control works, Red River Floodway, Winnipeg, Manitoba.
9. Flood control works, G. Ross Lord Dam, for Metropolitan Toronto and Region Conservation Authority.
10. [a] and [b]: Civil engineering and construction supervision for extensions to the subway system, Toronto, Ontario.
11. Underground engineering, tunnelling and excavation works for a wide range of applications.
12. Planning, engineering and construction management for transportation projects involving all modern modes.
13. Container handling facilities at Halifax, Nova Scotia.
14. Engineering and construction management for the National Harbours Board, Rodney Marine Terminal, Saint John, New Brunswick.
15. Highway Tunnel under the St. Lawrence Seaway, Welland Canal at Thorold, Ontario.
16. Combined road and rail tunnel including route relocations at Welland, Ontario.



1



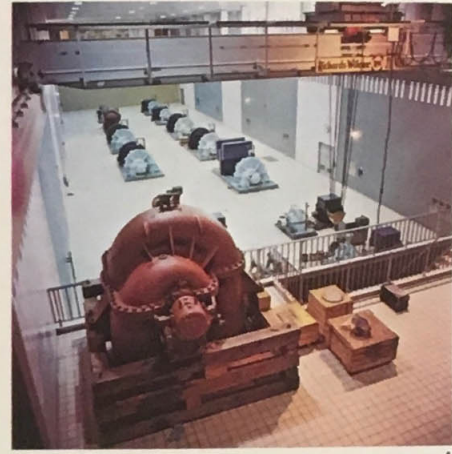
2[a]



3[a]



3[b]



4



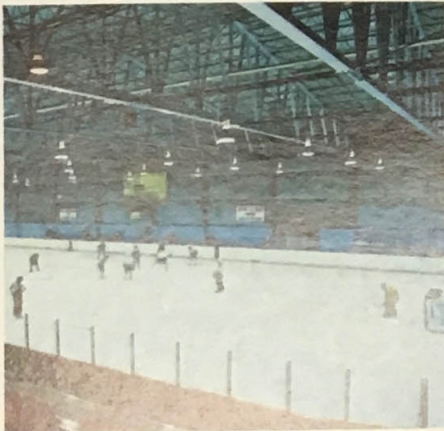
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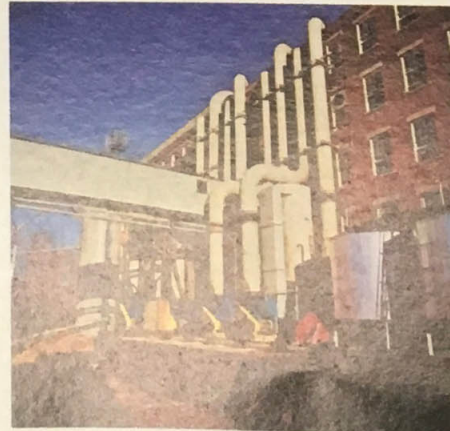
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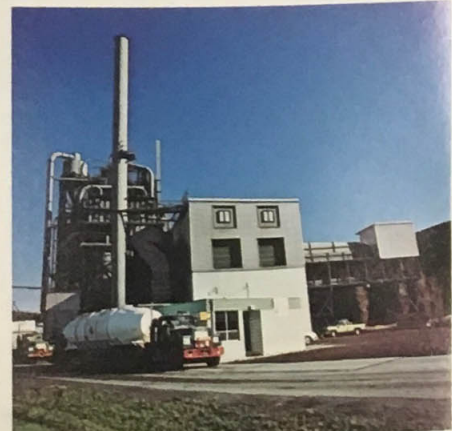
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10



11[a]



11[b]

ACRES

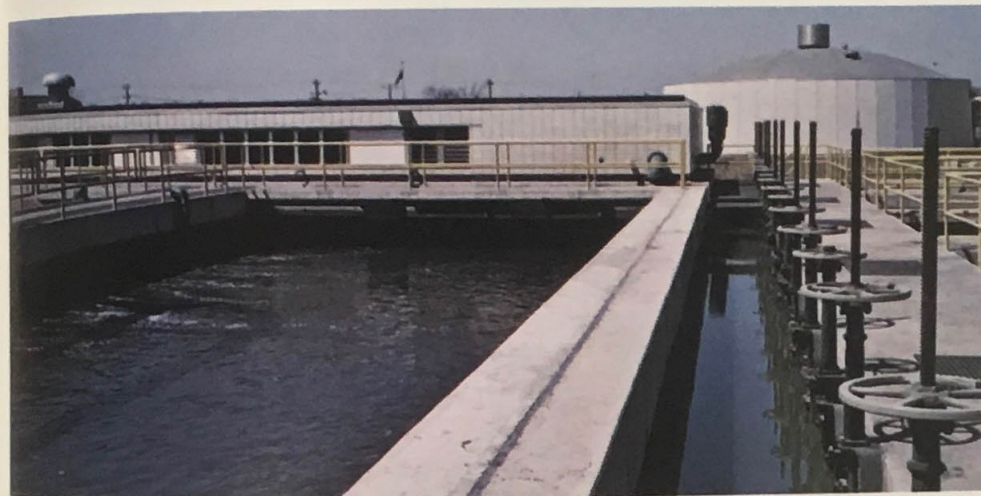
Some of Our Projects in Fuels and Industrial



2[b]



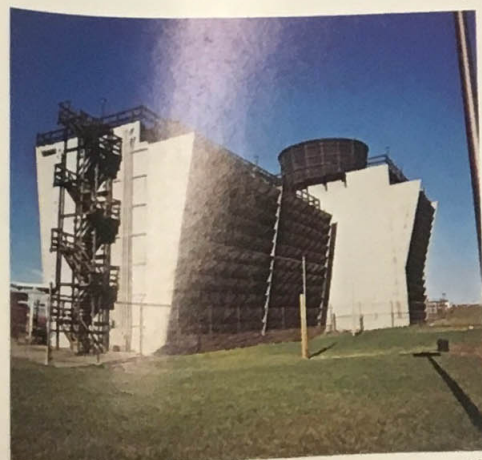
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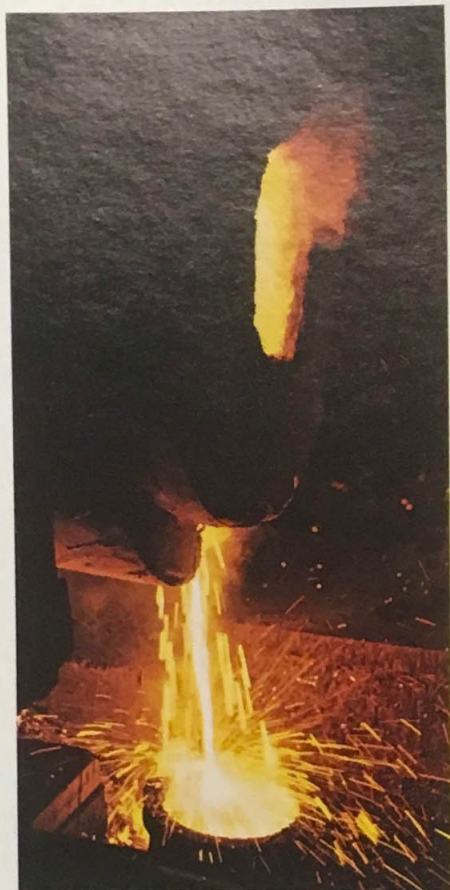


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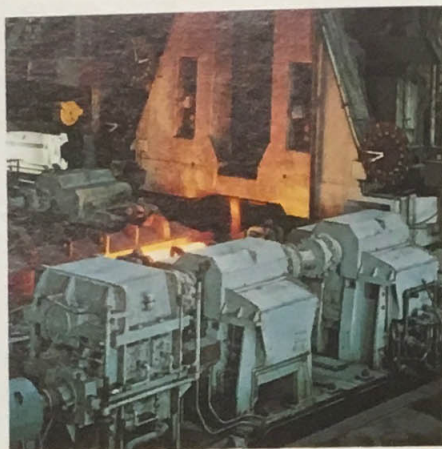


13

1. Engineering and field services for the Cochin Pipeline to carry ethane from Kerrobert, Saskatchewan to Green Springs, Ohio.
2. [a], [b] and [c]: Planning, engineering and construction supervision services for the oil and gas industry including developmental work on oil extraction from tar sands plus engineering design and construction of process units for the petro-chemical industry.
3. [a] and [b]: Refuelling systems and jet fuel terminals for airports.
4. Engineering and construction supervision, including concrete lined lake intake tunnel [in joint venture], of the R.L. Clark Water Purification Plant, Toronto.
5. Pollution control, municipal sewage treatment facilities for the City of Niagara Falls.
6. Shipyard planning, engineering and construction management services required for expansion of Saint John Shipyard and Drydock, Saint John, New Brunswick.
7. Engineering and construction management for major manufacturing facilities, L.N.G. container production plant for General Dynamics, Bushy Park, N.C.
8. Extension for the John Deere Manufacturing Plant, Welland, Ontario.
9. Engineering and construction supervision for food production and process plants including wharf and unloading facilities, Redpath Sugar Refinery, Toronto.
10. Recreational facilities: Indoor sports arena, Labrador City, Newfoundland.
11. [a] and [b]: St. Lawrence Starch Company, Port Credit, Ontario.
12. Central utility heating and chilled water facilities for institutional complexes, York University, Toronto, Ontario.
13. Engineering for the synthetic fibres industry.



1[a]



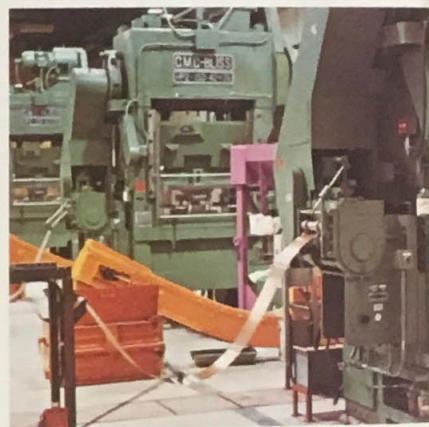
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1[c]



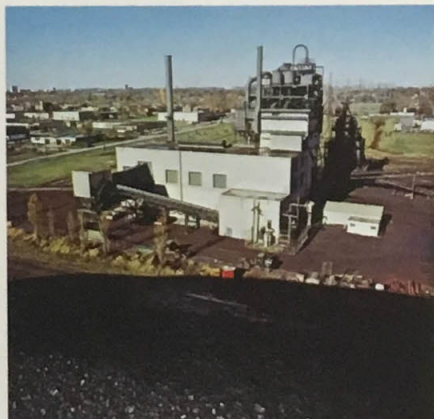
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3[b]



5



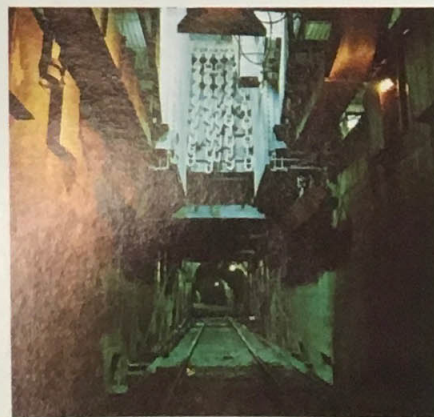
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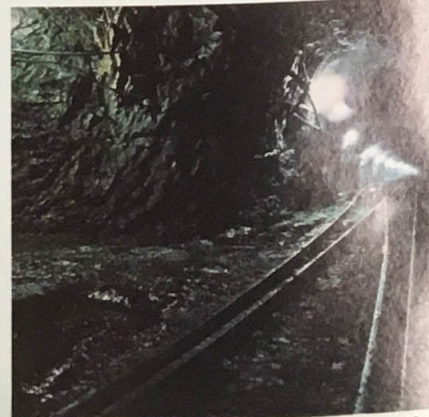
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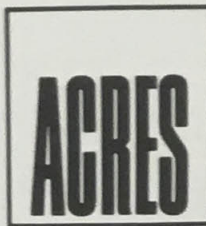
8[a]



8[b]

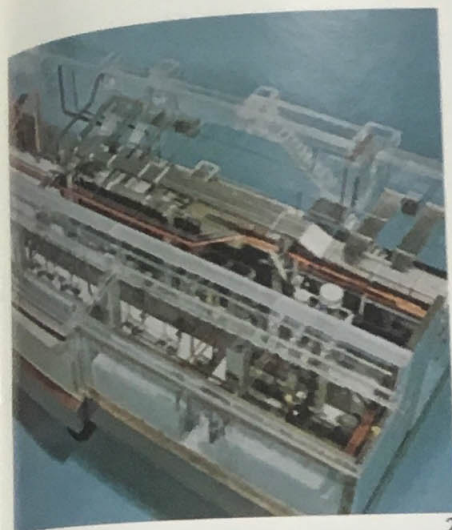


8[c]



Some of Our Projects in Metals and Mining

1. [a], [b] and [c]: Through a long association with major companies producing ferrous and non-ferrous metals, Acres has developed effective techniques to complement the engineering capabilities of the Company's clients. Typical assignments have included sintering and beneficiation processes, blending systems, hot and cold rolling mills, melt shops, billet reheating facilities, non-ferrous metallurgical and other processes. Acres has developed the Modumill concept for economically staged construction of steel works.
2. Modelling techniques applied to piping runs and plant arrangement for rolling mill oil cellar.
3. [a], [b] and [c]: Engineering, development of process systems and project management for coinage production facilities for the Royal Canadian Mint.
4. Assignments for Union Carbide Corporation including this silicon carbide furnace, Jacksboro, Tenn.
5. With the impending depletion of oil and gas reserves, coal has regained prominence in the energy field. Acres undertakes development of mining systems plus planning, engineering and construction supervision of new facilities or expansions of existing facilities, strip mined or underground.
6. Beneficiation and waste recycling: engineering and project management of a Fly Ash process plant for Ontario Hydro at Lakeview Generating Station.
7. [a], [b] and [c]: Material production and processing plants for Construction Aggregates Ltd., Port Mellon, B.C. and Victoria, B.C.
8. [a], [b], [c], [d] and [e]: Engineering services for mining projects, from geo-technical investigations to management. Railroad tunnel, ore pass and associated facilities at Humphrey Mine, Iron Ore Company of Canada, Labrador City, Newfoundland.



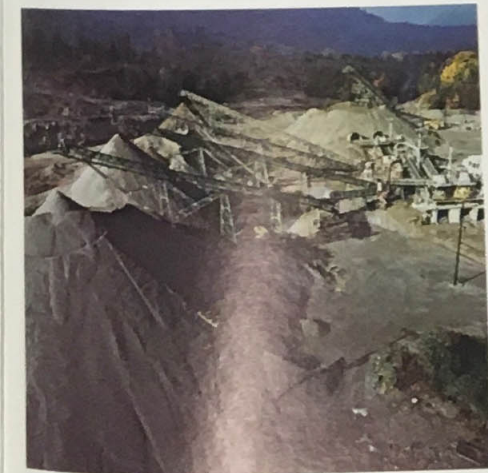
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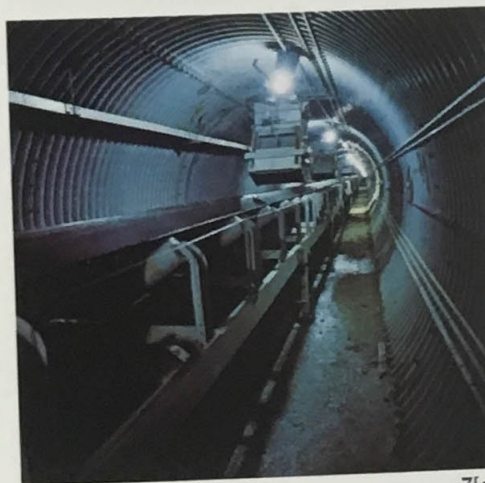
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4



7[b]



7[c]



8[d]



8[e]



1[a]



1[b]



1[c]



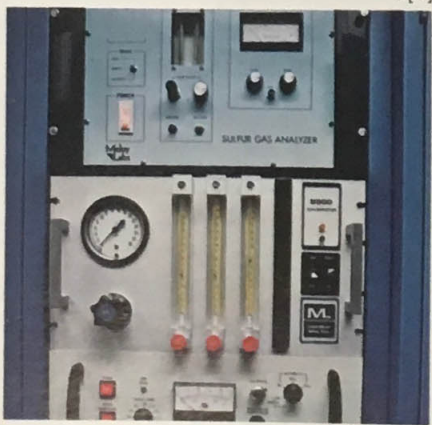
2[b]



3[a]



3[b]



2[c]



3[c]



6[a]

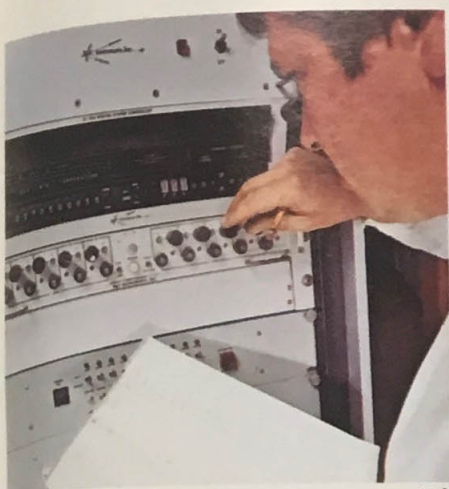


6[b]



Special Services

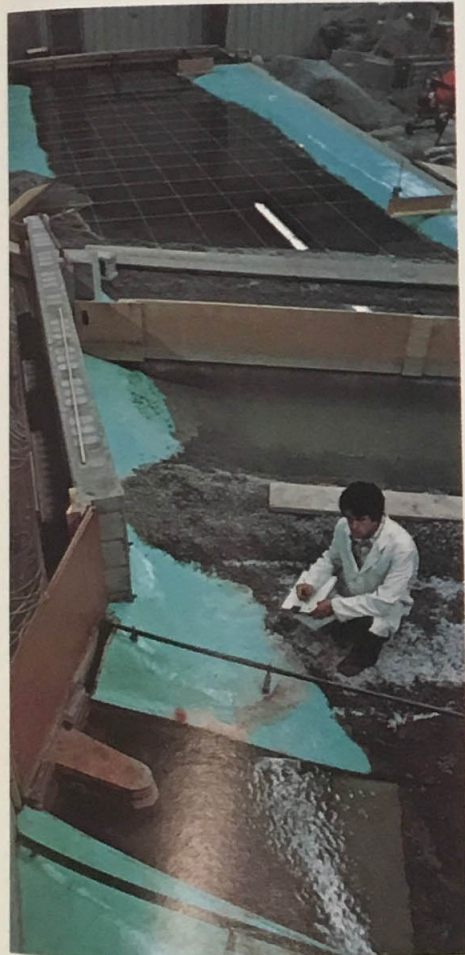
1. [a], [b], [c] and [d]: Laboratory facilities available for chemical, physical, geotechnical, aerodynamic, hydraulic thermal and general investigations.
2. [a], [b] and [c]: Environmental assessment capabilities covering the full range of scientific capability. Mobile and fixed location monitoring services.
3. [a], [b], [c] and [d]: Hydraulic and aerodynamic flow investigations are widely used by Acres in hydro-electric, irrigation, marine and equipment design.
4. Acres is self-sufficient in all geotechnical and geological capabilities. Foundation and underground facility engineering is a specialty. Modern techniques and equipment such as this borehole television camera are available for sub-surface investigations.
5. Mathematical simulation models are extensively used such as one developed and implemented by Acres for operating the forty-eight reservoir Trent River system flowing into Lake Ontario.
6. [a] and [b]: Modern techniques of management must be applied to bring large complex projects to successful completion. Acres has considerable experience in scheduling and controlling human, material and financial resources through Project Management and Construction services.
7. Quality assurance, inspection and expediting services are provided by the Company both for projects it undertakes and for clients requiring specific assignments of this type.
8. [a] and [b]: Economic and planning services work is carried out by Acres subsidiary Hedlin, Menzies & Associates Ltd. Working in both the private and public sectors in Canada and overseas, the firm has carried out economic analyses, business forecasts and studies in transportation, forestry, mining, petroleum, power, finance, merchandising and in many other areas.



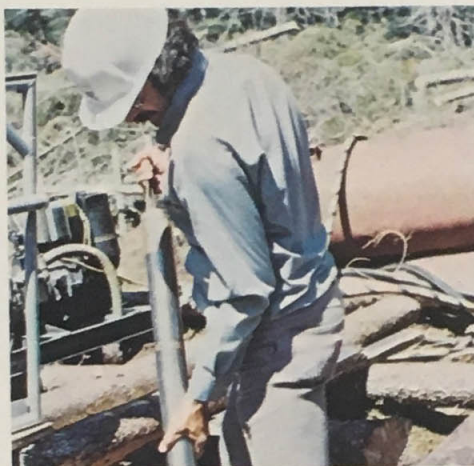
1[d]



2[a]



3[d]



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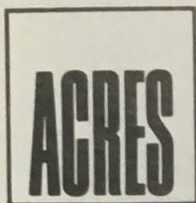
5



8[a]



8[b]



International Projects

Clients served by Acres include major industrial corporations, all levels of government in Canada, governments in numerous other countries around the world and many international agencies.

The following is a partial list of Acres' international projects financed by government and international organizations:

Antigua	Water Supply Study
Argentina	Parana de las Palmas Navigation Channel (Construction Supervision)
Argentina/Uruguay	Salto Grande Multipurpose Project (Engineering Studies)
Bangladesh	Transmission Line Crossing Jamuna River (Engineering and Construction Supervision)
Brazil	Belem Thermoelectric Project (Engineering and Construction Supervision); and Airport Feasibility Study
Colombia	Alto Anchicaya Hydro-Electric Development (Engineering and Construction Supervision)
Dominican Republic	Ya que del Norte Irrigation Project — Stage 1 (Engineering and Construction Supervision)
Ethiopia	Hydro-Electric Power Studies
Ghana	Power System Studies
Indonesia	Civil Aviation Sectoral Study; Jakarta Airport Master Planning
Iraq	400 KV Supergrid
Kenya	Lower Tana River Basin Study
Laos	Nam Ngum Hydro-Electric Development (Engineering Management Services)
Latin America Regional	Electronics Industry Feasibility Study
Malaysia	Air Transportation Study and National Airport Plan; Sabah Forestry Study
Mexico	Review of Systems Expansions
Niger	Grain Study
Pakistan	Warsak Hydro-Electric Power Project, Units 5 and 6; Energy Resources Study; Tarbela Hydro-Electric Power Project
Taiwan	Choshui and Wu River Basin Study
Thailand	Sirikit Hydro-Electric Development Studies (Engineering Design and Equipment Selection)
Trinidad and Tobago	Fisheries Study
Turkey	Aslantas Dam and Powerhouse (Engineering Design)
West Africa	Telecommunications Network



History of the Company

The Company was established as a consulting engineering partnership in Niagara Falls in 1924 by Harry G. Acres, who was chief hydraulic engineer of Ontario Hydro during the construction of the Queenston Hydro-Electric Generating Station there. In 1926, the business was incorporated under the name H.G. Acres & Company Limited.

During the subsequent 25 years, H.G. Acres & Company Limited earned a reputation for its services to the power industry and expanded the Company's fields of activity to cover water supply, mining, pulp and paper and industrial facilities.

In the post-war years, Acres was engaged by several power commissions in Canada to provide engineering services for the rapid expansion that took place in hydro-electric generating facilities. During this period, Ontario's first major thermal power station, J. Clark Keith Generating Station at Windsor, was built to Acres' engineering design.

The years 1952 to 1960 represented a dramatic period for the Company. During this eight-year span, Acres engineered some 11 hydro-electric generating stations, including Bersimis 1 and 2 for Hydro Quebec, the Kelsey Power Development in Manitoba and the Warsak Power Development constructed in Pakistan under the Colombo Plan.

During this same period, control of the Company changed through purchase of a substantial interest by the Fluor Corporation. However, the Company was repurchased in 1960 by a group of senior Acres staff. Thus, H.G. Acres & Company Ltd. again became privately held and employee owned.

This repatriation to Canadian ownership marked a turning point for Acres. The Company's scope and diversification began to expand rapidly to include services in the fields of industrial development, transportation, telecommunications, economics and planning, project management and ocean and marine services.

Various offices and regional companies were established across Canada and project teams located overseas in more than 25 countries. During this period of rapid expansion, Acres established several joint ventures and collaborated with other companies on projects in several overseas countries.

In the late 1960's, Acres consolidated its consulting activities under the name Acres Consulting Services Limited with Hugh C. Rynard as President.

In 1974, Acres Consulting Services Limited implemented a realignment of its organization establishing divisional groups with market-oriented functions. This was done to ensure that the Company would remain in a strong position to meet future consulting demands worldwide. Currently, Acres is owned by its senior staff involved directly in the day to day operations. It maintains close contact with the financial sector with which the Company was associated in past years.

Throughout its history, the Company has been successful in strengthening and developing its consulting business. Today, Acres has the capability, experience and resources to handle the engineering task for the largest international development and construction programs.



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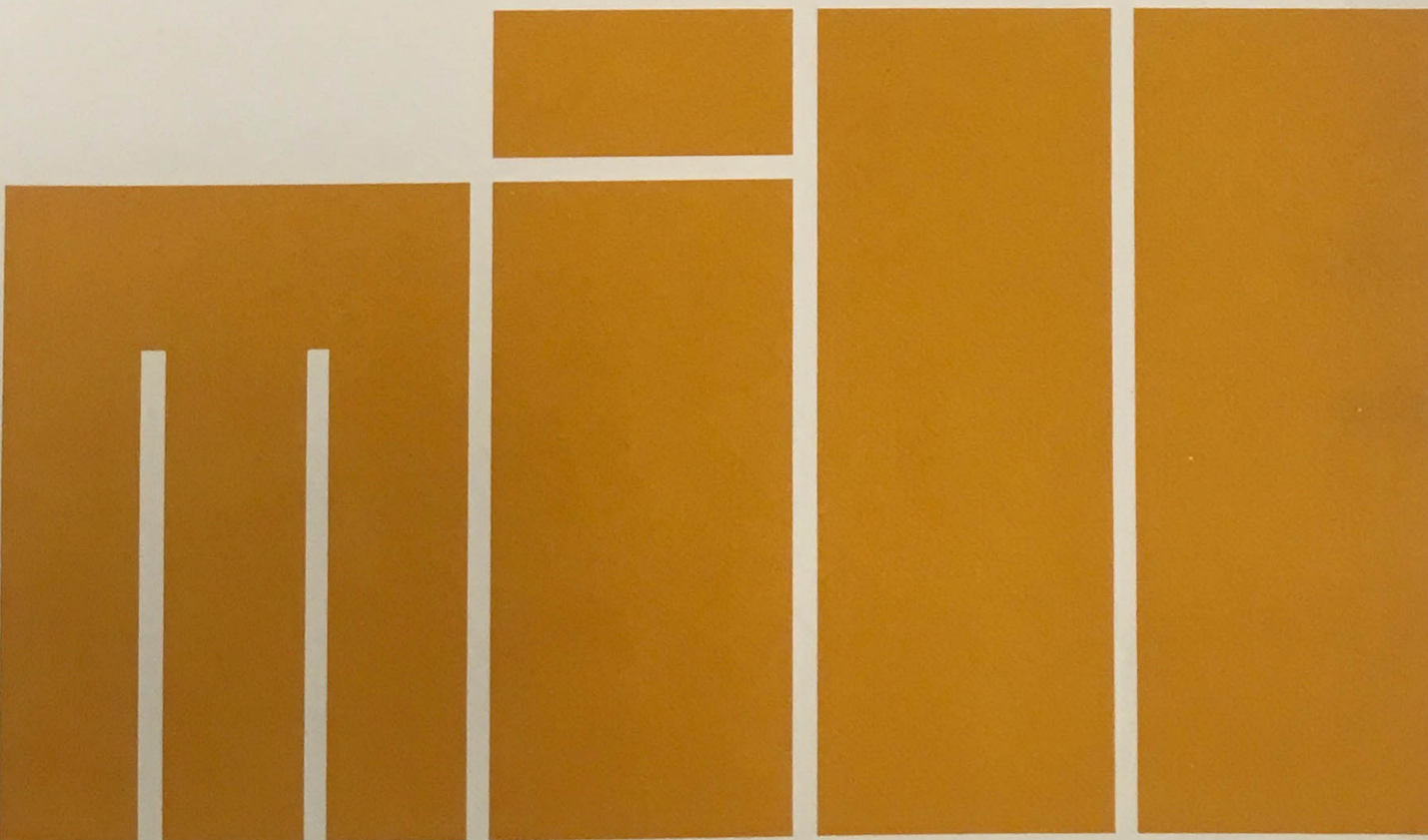
Washington

Suite 1105, 1750 Pennsylvania Avenue N.W., Washington, D.C. 20006
Telephone (202) 208-8446

HOUSER AND CARAFAS ENGINEERING CO.

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301 Fifth Avenue, Pittsburgh, Pa. 15222
Telephone (412) 471-9929, Telex 812-410



MODUMILL The Strip Mill - Module 4

ACRES MODUMILL CONCEPT

Acres has developed the design of a small, integrated steel mill which can be built in a series of complementary modules.

Each module is a miniproduction unit with a marketable end product. Because of its unitized construction, it offers a variety of options for future expansion.

The plant and equipment used are provided by manufacturers with a high reputation in the steel industry. With the backing of the vast engineering and financial resources of the Acres organization, Modumill offers an entry into steel production at low cost.

THE STRIP MILL - MODULE 4

The Strip Mill Module is among the more attractive options that may be considered. In collaboration with T. Sendzimir, Inc., Thermatool Corp. and Marcrest Pacific Co., Acres Consulting Services offers a tried and proven in-plant flat product steel-making and fabricating facility.

Some typical applications of this facility may be summarized as follows:

1

BACKWARD INTEGRATION starting with no facilities, but with a need for strip and products that can be produced by welding from strip. Install only a THERMATOOL welding mill. Feed weld mill with strip purchased from other producers. After short payback period, install SENDZIMIR planetary mill and roll strip in-plant from slabs purchased from outside sources. After another short payback period, add in-plant electric melting, continuous casting, and slab processing equipment. Initial cost of THERMATOOL HF beam welding mill and slitting line: \$2 to \$4 million, depending on capacity. Initial capacity: Up to 50,000 tons of welded pipe or beams/year/shift.

2

USE OUTSIDE MATERIALS in the form of slabs. Create in-plant facilities consisting of SENDZIMIR planetary hot-rolling mill (as described in No. 3 and No. 4), add strip-slitting equipment and a THERMATOOL HF beam welder. Approximate capacity: 125,000 tons of rolled strip, 50,000 tons of welded beams annually. Approximate cost: \$12 million.

3

EXPAND EXISTING BAR MILL from a basic scrap melt, billet casting, and bar and shapes-rolling facility. Add additional furnace capacity and continuous casting for slabs. Add SENDZIMIR planetary mill for hot rolling of strip. Add strip slitters. Add THERMATOOL HF beam welder. Approximate added capacity: 125,000 tons of flat strip, 50,000 tons of welded beams annually. Approximate cost: \$18 million.

4

COMPLETE INTEGRATED MINIMILL facilities for making raw steel from scrap or metallized ore, casting of billets, then rerolling into merchant bars, rods, small angles and channels. Also equipped to continuously cast slabs for subsequent hot rolling by SENDZIMIR planetary mill into strip or plate. THERMATOOL welding equipment for producing variety of structural, tubular, and other products from slit strip. Annual steelmaking capacity: 200,000 to 400,000 tons/year/shift.

NEW MINIMILL TECHNOLOGY

IN-PLANT FLAT PRODUCT STEELMAKING/STEEL-FABRICATING CAPABILITIES

- Eliminate need for outside steel sources
- Reduce cost of steel strip
- Increase existing product profitability
- Add flat products, others, to merchant products
- Complete new mill, or add to existing rod mill

INTEGRATED STEEL CAST-PROCESS-FABRICATE FACILITIES FOR PRODUCERS OF 50,000 TO 400,000 TONS ANNUALLY

MODUMILLS CAN PRODUCE

- Hot-rolled strip up to 24 inches wide and down to .060 inch thick (610 x 1.5 mm)
- Hot-rolled precision plate
- Slit coiled strip and cut to length sheets
- High-frequency welded products from strip:
 - Structural I and H beams
 - Pipe and tube
 - Culvert pipe
- Steel slabs
- Steel billets
- Hot-rolled merchant bar shapes and flats
- Hot-rolled angles and channels
- Roll-formed angles and channels from strip

BOLD BUT PRACTICAL CONCEPT

It has now become attractive from economic, production, and other standpoints for existing or prospective operators of mini-steel mills of 50,000-to 400,000-ton annual capacity to install and operate their own flat product steelmaking, steel-processing, and steel-fabricating facilities in-plant. This can either complement production of rod products or be a flat product mill only.

Purchase, start-up, and operating costs are a fraction of those of conventional "maxi" plants. Basic "ministeel mills" for merchant products, planetary mill for strip and plate have been in successful commercial operation for more than 15 years.

This development is the result of recent combining of traditional with highly advanced steelmaking, processing, and fabricating methods and equipment. These include electric arc melting, continuous slab casting, planetary hot-strip rolling mills, high-frequency resistance welding, and others.

T. Sendzimir Inc.

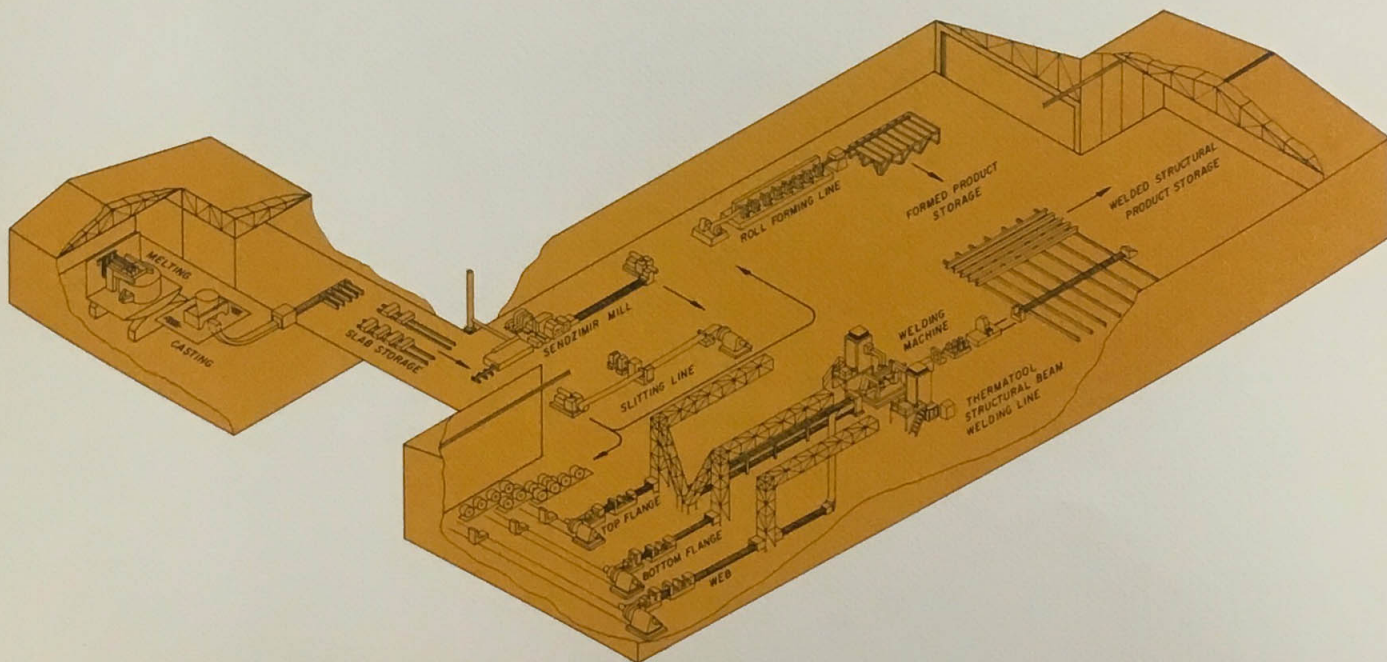
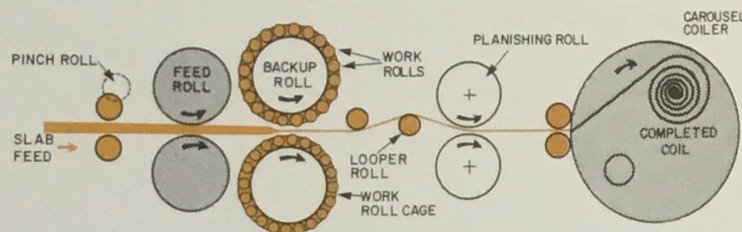
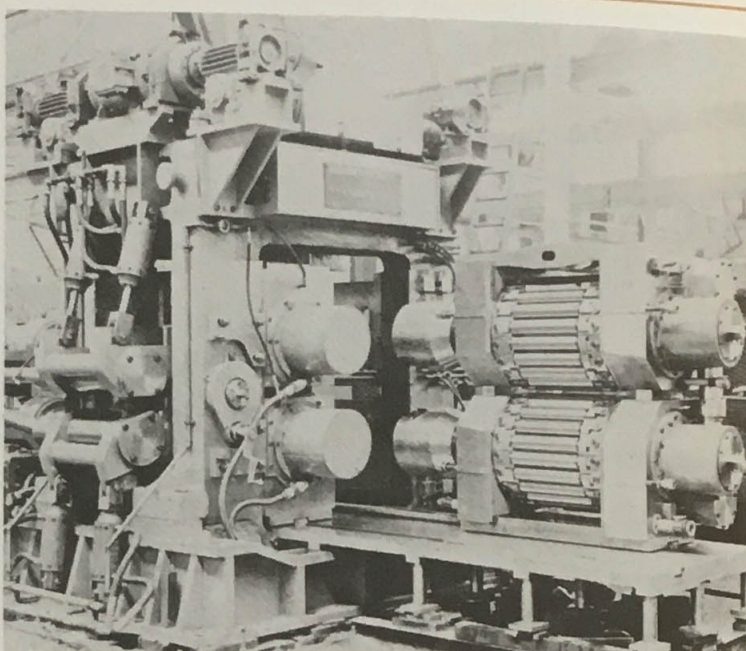
269 Brookside Road
Waterbury, CT 06720 U.S.A.
Tel: 203-756-4617
TWX: 710-477-0369
Cable: Sendzimir Waterbury

SENDZIMIR PLANETARY ROLLING MILLS

The most efficient and economical means of producing flat strip in a ministeel plant is to roll it from a continuous cast slab, using a SENDZIMIR planetary "mini" hot-strip rolling mill.

SENDZIMIR rolling mills are somewhat different from conventional mills, in that slabs are reduced to strip *in a single pass*, as seen in the schematic. These mills are already in operation as minimills for rolling of steel strip up to 24 inches (610 mm) wide and .060-inch (1.5-mm) minimum thickness. Cost of converting slab to strip on a planetary rolling mill is generally less per ton than on a conventional rolling mill. Specific advantages compared with conventional strip rolling processes and equipment include:

- 2 to 4 percent **HIGHER YIELD** in tons of trimmed strip out, to tons of slabs in.
- **LOWER HEATING COSTS:** Slab preheat temperature required for rolling is 100 to 200°F less.
- **LOWER SCALE LOSS:** Due to lower rolling temperatures required and faster heating cycle.
- **LOWER ROLL COSTS:** Lower rolling temperatures result in longer roll life.
- **LOWER POWER CONSUMPTION**
- **LESS FLOOR SPACE:** 1/3 to 1/2 of space required.
- **LOWER CAPITAL COSTS:** About 1/3 of investment per annual ton compared to integrated steel mills.
- **ECONOMICAL FOR SMALL RUNS:** Width and gauge changes made often without stopping mill.
- **HIGHEST STRIP QUALITY:** Excellent surface characteristics. Straight. No camber. Virtually without crown. No change in characteristics within a coil.



Thermatool Corp.

280 Fairfield Avenue
Stamford, Ct. 06902 U.S.A.
Tel: 203-357-1555
Telex: 99-6412
Cable: THRMTL STD

STRUCTURAL BEAMS AND SHAPES

A wide variety of structural I, H, and T beams can be high frequency welded on the same mill in a single pass from coiled strip, in configurations impossible to produce by rolling or conventional welding processes. Yield per ton is higher than by rolling.

Shapes producible include: asymmetric beams with combinations of thick, thin, long, short components. Hybrids comprised of different steels. Higher strength to weight "standard" sections without tapers or drafts.

PRODUCTION RANGE

Size Range:	Beam depth: 4" to 18" (101.6-457.2 mm) Webs: 3/32" to 3/8" (2.3-9.5 mm) thick Flanges: 2" to 12" (51-305 mm), 1/8" to 1/2" (3.3-12.7 mm) thick
Metals:	Constructional steels, including A7, A36, A373, high-tensile A242 and A240 stainless steels, coated steels
Welding Rates:	25 to 150 ft/min (7.5-45 m) depending on size of beam and mill capacity
Capacity:	15,000-50,000 tons/shifts annually.

PIPE AND TUBE LONGITUDINAL AND SPIRAL SEAM

More than 50 percent of world tonnage of welded steel pipe and tube is produced by the THERMATOOL 400 khz process. One mill can handle a wider range of metals and shapes than other welding methods. Uses up to 50 percent less power, welds at high speeds. Strip needs no descaling or pickling, cleaning, or trimming. Produces smaller heat-affected zone and weld bead.

Larger diameter to wall thicknesses possible in longitudinal-seam pipe welding. HF power is fed to workpiece directly through small sliding contacts or through induction coils, interchangeably, for best production advantages.

PRODUCTION RANGE*

LONGITUDINAL-SEAM PIPE & TUBE

Diameters:	3/8" to 8" (9.5-203mm)
Wall Thicknesses:	.060" to .625" (1.5-16 mm)
Metals:	All commercial, ferrous metals, including X50-X65 API Grade Steels, stainless steels, coated steels
Welding Rates:	20 to 300 ft/min (6-90+m) depending on wall thickness

PRODUCTION RANGE*

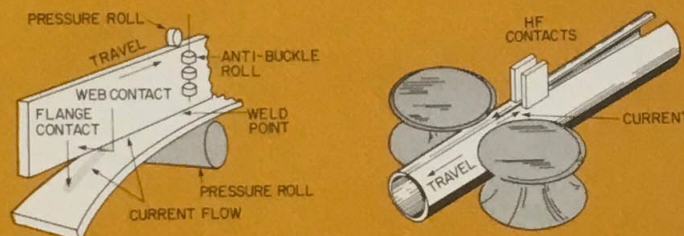
SPIRAL-SEAM PILING/CULVERT

Diameters:	12" to 96" (305-2438mm)
Wall Thicknesses:	.06" to .250" (1.5-6.4mm) lap .06" to .165" (1.5-4.1mm) butt (in corrugated culvert only)
Metals:	Steels and certain stainless steels, coated or uncoated
Welding Rates:	20 to 150 ft/min (6m-45m)

*Based on availability of up to 24" (610mm) wide coil, down to .060" (1.5mm) thick from planetary rolling mill.

BEAM WELDING

In producing I, H, or T beams, high-frequency current is concentrated simultaneously at each edge of the beam web piece, and in a narrow, mating "stripe" running the length of each flange. High-frequency contact position is adjustable to obtain proper heating of all faying surfaces, for welding of all beam components during a single pass through the squeeze rolls.



PIPE WELDING

Pipe edges to be joined are in contact at squeeze rolls, but separated in a 5 to 7 degree "vee" upstream. High-frequency current is introduced upstream of the vee apex at squeeze rolls, either through small, sliding contacts at each edge of open seam or through induction coils. Current flows along one seam edge down to the vee apex, then upstream along opposite edge to other contact. Special properties of high-frequency current make it flow only to depth of few thousandths of an inch, concentrating heat on edge surface "skin". Forged weld is made as workpiece passes through squeeze rolls.



Acres Consulting Services Limited

ENGINEERING AND PROJECT MANAGEMENT

Acres Modumill concept offers a wide variety of options to the client. These are predicated by the desired steelmaking capacity or the production capacity for various products. To formulate the actual requirements Acres offers:

- Raw material source studies
- Market surveys to establish product acceptance and sales volume
- Regional planning, site investigation and evaluation
- Economic studies and planning
- Technical and engineering studies
- Environmental studies

Having established the basic design criteria for a project, Acres will undertake the engineering and management services to bring the project to fruition. These services include:

- Preparation of process flow sheets and layout designs for buildings, equipment and services
- Preliminary and detail engineering in conjunction with the equipment suppliers
- Specification and contract document preparation, tender evaluation, procurement, inspection and expediting of equipment and materials

- Cost estimating, accounting and budget control
- Construction schedule monitoring and control
- Complete site construction management and supervision
- Plant commissioning

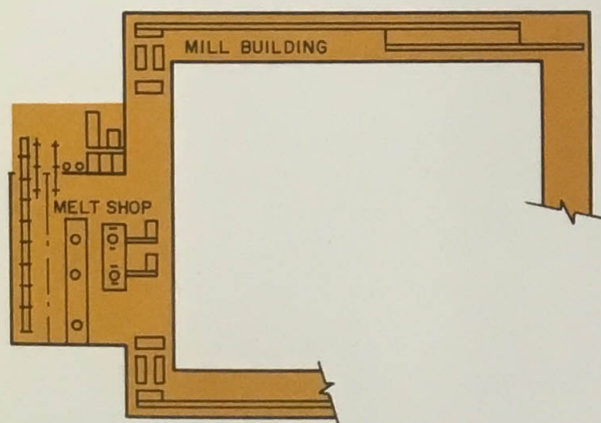
Acres Consulting Services will act as the client's agent, if so desired, and undertake full project management. A complete turnkey project can also be negotiated, if requested.

Acres can provide for programs of operator and supervisor training and for supervised plant start-up and initial operation. Courses for line management may also be arranged.

In many cases Acres can offer or arrange a complete financing package to the client.

Acres Consulting Services is confident that Module 4 "The Strip Mill", conceived in conjunction with T. Sendzimir, Inc. and the Thermatool Corp., offers one of the most practical and profitable approaches for the minimill operator, either in conjunction with an existing facility or as the starting point for a complete minimill complex.

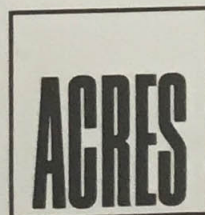
MODULE 4



Acres has prepared a number of publications on the Modumill concept. Enquiries on these, and on Modumill — Module 4 in particular, may be addressed to:

The General Manager
Metals and Mining Group
Acres Consulting Services Limited
5259 Dorchester Road
Niagara Falls, Canada
L2E 6N8

Tel: 416-354-3831
Telex: 021-5107
Cable: Acrescan NFO



Marcrest Pacific Co.

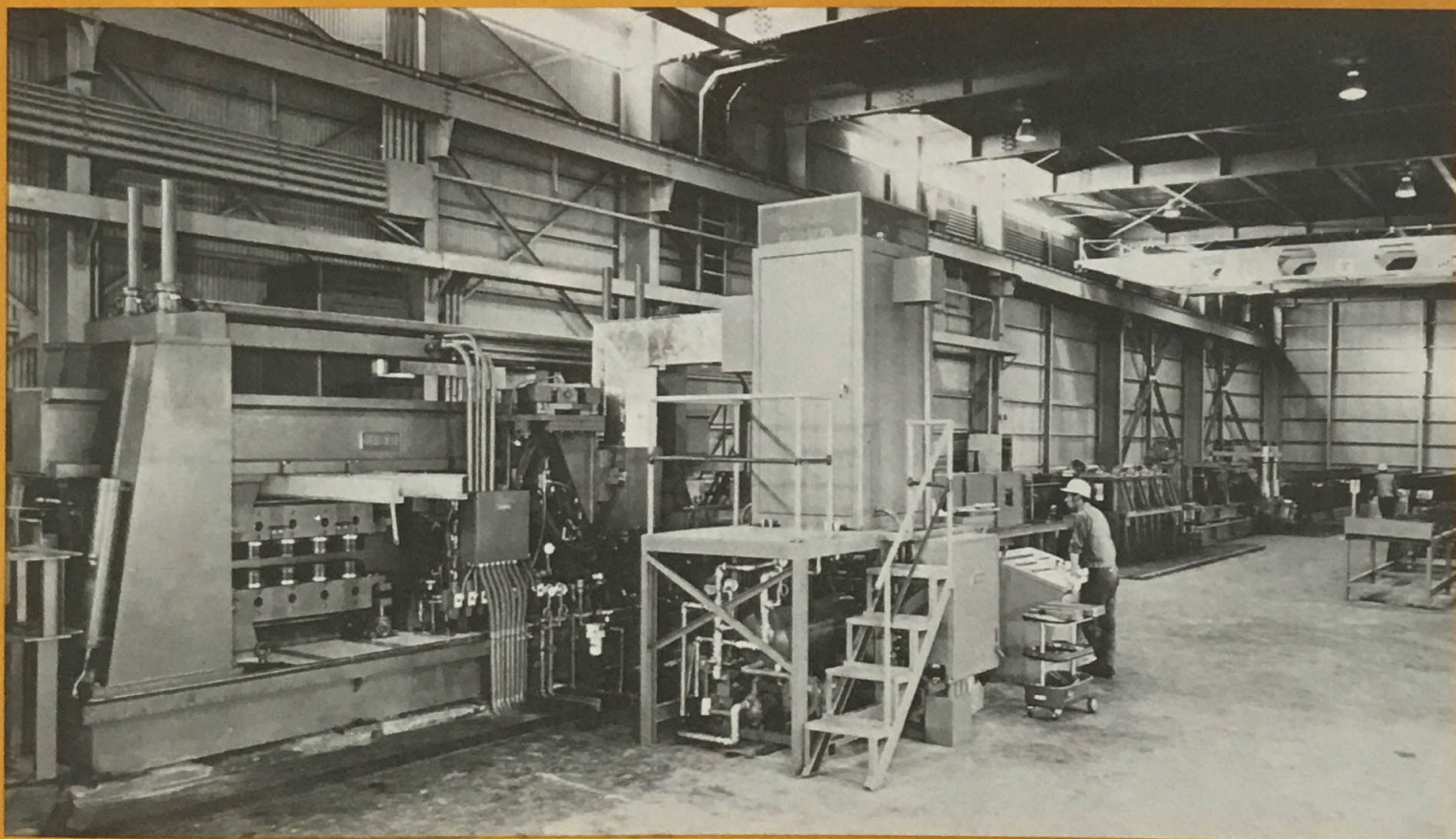
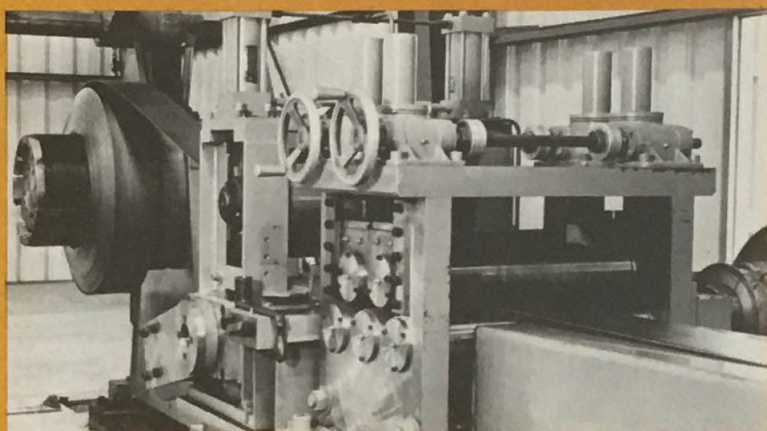
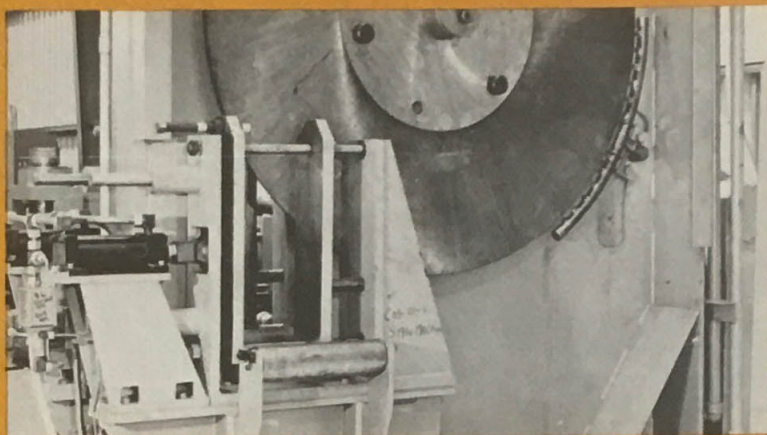
24724 Wilmington Avenue
Wilmington, California, 90744 U.S.A.
Tel: 775-6571
Telex: 650-449

Marcrest Pacific Co. of Wilmington, California owns and operates the first commercial installation in North America for making structurals using the THERMATOOL high-frequency welding process.

Marcrest Atlantic S.A. of Geneva, Switzerland, is the company's overseas affiliate in charge of providing technical assistance on similar projects worldwide.

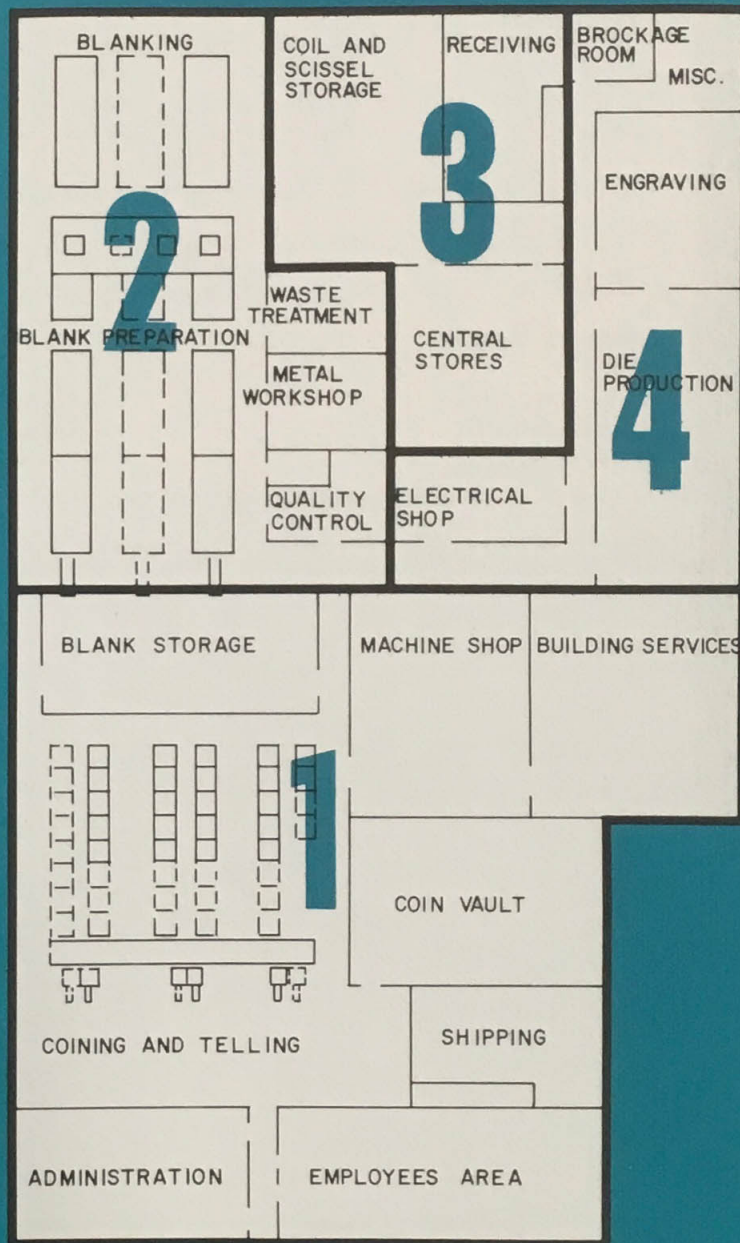
Their success in operating a growing and profitable enterprise gives them the practical experience to offer:

- In-depth economic feasibility studies
- Optimal mill layouts
- Mechanical handling equipment design
- Operator training courses
- Operations and control procedures
- Initial mill installation and start-up
- Product design
- Marketing techniques





MODUMINT.®



0 20 40
SCALE IN FEET

Cost Guide for 400 million coins per year

Module 1

ESTIMATED REQUIREMENTS

LIST OF MAJOR EQUIPMENT

Coining presses	22
Counting machines	4
Press feed systems	4
Press discharge conveyors	4
Weigh scales	2
Weigh hoppers	8
Charge hoppers	4
Charge conveyors	4
Forklift truck	1
Containers for blanks	300

BUILDING AREAS (sq. ft)

Plant	38,000
Administration	1,700
Employee services etc.	1,800

STAFFING

Supervisory	5
Operating (skilled)	16
Operating (unskilled)	10
Clerical	4

UTILITIES FOR PROCESS

Power kwh	160,000/year
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MATERIALS FOR PROCESS

Prepared blanks	lb
Coinage dies	5,200

ESTIMATED COSTS

CAPITAL

Equipment Installed

Equipment as listed	\$1,667,500
Miscellaneous items	50,000
Contingency factor	257,500

Sub Total	\$1,975,000
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BUILDING

Plant	3,800 ft ² x \$	/ft ² =
Administration	1,700 ft ² x \$	/ft ² =
Employee services	1,800 ft ² x \$	/ft ² =

Sub Total	41,500 ft ²
-----------	------------------------

OPERATING (Per Annum)

COST OF LABOUR

Supervisory	5 x \$	=
Operating (s)	16 x \$	=
Operating (u)	10 x \$	=
Clerical	4 x \$	=

Sub Total

COST OF PROCESS UTILITIES

Power	160,000 kwh x	=
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COST OF PROCESS MATERIALS

Blanks:		
Bronze	lb x \$1.75 =	
Nickel	lb x \$5.0 =	
Cupro-nickel	lb x \$2.1 =	

Sub Total

TOOLING

Coinage dies	5,200 x \$32	= \$166,400
--------------	--------------	-------------

Basic Capital Cost \$

Basic Operating Cost \$

400 million coins per year

ESTIMATED REQUIREMENTS

LIST OF MAJOR EQUIPMENT

As per Module I Plus:

Upsetting machines	3
Upsetting feed systems	3
Weigh hoppers	3
Discharge conveyors	6
Wash machines	2
Annealing furnaces	2
Furnace feed systems	2
Cleaning machines	2
Weigh scales	1
Forklift truck	1

BUILDING AREAS (sq ft)

Including Module I

Plant	59,000
Administration	2,000
Employee services	2,200

STAFFING

Supervisory	5
Operating (skilled)	26
Operating (unskilled)	11
Clerical	5

UTILITIES FOR PROCESS

Including Module I

Power kwh	2,220,000/year
Water U.S.Gal.	18,000,000/year

MATERIALS FOR PROCESS

Plain blanks	lb.
Coinage dies	5,200

ESTIMATED COSTS

CAPITAL

Equipment Installed

For Module I	\$1,975,000
Plus	
Equipment as listed	792,400
Miscellaneous items	50,000
Contingency factor	126,600
Sub total	\$2,944,000

BUILDING

Plant	59,000 ft ² x \$	/ft ² =
Administration	2,000 ft ² x \$	/ft ² =
Employee services	2,200 ft ² x \$	/ft ² =
Sub Total	63,200 ft ²	

OPERATING (Per Annum)

COST OF LABOUR

Supervisory	5 x \$	=
Operating (s)	26 x \$	=
Operating (u)	11 x \$	=
Clerical	5 x \$	=

Sub Total

COST OF PROCESS UTILITIES

Power	2,220,000 kwh	x	=
Water	18,000,000 U.S.Gal	x	=

Sub Total

COST OF PROCESS MATERIALS

Blanks:		
Bronze	lb x \$1.45	=
Nickel	lb x \$4.6	=
Cupro-nickel	lb x \$1.8	=

Sub Total

TOOLING

Coinage dies	5,200 x \$32	= \$166,400
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Basic Operating Cost

Basic Capital Cost

ESTIMATED REQUIREMENTS

LIST OF MAJOR EQUIPMENT

As per Module 1 & 2 Plus:

Blanking presses	2
Press feed lines	2
Discharge screens	2
Discharge conveyors	5

BUILDING AREAS (sq ft)

Including Modules 1 & 2

Plant	72,000
Administration	3,000
Employee services	3,300

STAFFING

Supervisory	7
Operating (skilled)	31
Operating (unskilled)	14
Clerical	6

UTILITIES FOR PROCESS

Including Modules 1 & 2

Power kwh	2,320,000/year
Water U.S.Gal	18,000,000/year

MATERIALS FOR PROCESS

Coiled strip	lb.
Coinage dies	5,200

ESTIMATED COSTS

CAPITAL

Equipment Installed

For Modules 1 & 2	\$2,944,000
Plus	
Equipment as listed	632,000
Miscellaneous items	50,000
Contingency factor	102,000
Sub Total	\$3,728,000

BUILDING

Plant	72,000 ft ² x \$	/ft ² =
Administration	3,000 ft ² x \$	/ft ² =
Employee services	3,300 ft ² x \$	/ft ² =
Sub Total	78,300 ft²	

OPERATING (Per Annum)

COST OF LABOUR

Supervisory	7 x \$	=
Operating (s)	31 x \$	=
Operating (u)	14 x \$	=
Clerical	6 x \$	=

Sub Total

COST OF PROCESS UTILITIES

Power	2,320,000 kwh	x	=
Water	18,000,000 U.S.Gal	x	=

Sub Total

COST OF PROCESS MATERIALS

Coiled strip (based on actual weight of product)

Bronze	x \$0.984 =
Nickel	x \$3.859 =
Cupro-nickel	x \$1.403 =

Sub Total

TOOLING

Coinage dies	5,200 x \$32	=	\$166,400
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Basic Capital Cost

\$

Basic Operating Cost

\$

ESTIMATED REQUIREMENTS

LIST OF FACILITIES

BUILDING AREAS (sq ft)

STAFFING

Die production shop	Plant	14,400	Supervisory	4
Machine shop	Employee services	600	Operating (skilled)	15
Electrical workshop			Operating (unskilled)	1
Metal workshop			Clerical	1
Quality control laboratory				

ESTIMATED COSTS

OPERATING (Per Annum)

CAPITAL

COST OF LABOUR

Equipment Installed

Equipment for	
Facilities as listed	\$934,000
Miscellaneous items	60,000
Contingency factor	146,000
Sub Total	\$1,140,000

Supervisory	4 x \$	=
Operating (s)	15 x \$	=
Operating (u)	1 x \$	=
Clerical	1 x \$	=
Sub Total		

BUILDING

Plant	14,400 ft ² x \$	/ft ² =
Employee Services	600 ft ² x \$	/ft ² =
Sub Total	15,000 ft ²	

Basic Capital Cost	\$
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Basic Operating Cost	\$
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A GUIDE TO THE COST OF MODUMINT

These tables list the basic requirements for the several modules. They also provide a simple method of calculating approximate capital and operating costs.

Because the conditions for any particular project are likely to be unique, these costs should not be considered as final in making a feasibility or financial analysis.

USE OF THE COST SHEETS

Costs for the equipment are drawn from North American sources at 1975 prices and include allowances for freight and installation.

The building areas are based on a single storey structure having an average ceiling height within the plant of 18 feet.

The unit costs may be inserted by your own staff, using the most up-to-date information on a local situation. Alternatively, Acres engineers will be happy to assist in calculating reliable cost figures. Please remember to include building services in the unit costs.

For simplicity the staffing requirements have been shown in four basic categories. Average annual salaries should be entered against each category.

This version of MODUMINT is primarily designed for processing the more common coinage material such as bronze, nickel and cupronickel. Should other materials, such as aluminum or precious metals be used, the equipment and space requirements could change considerably. A more detailed study would be needed to measure the effects on capital and operating costs.

Raw material costs are based on Canadian sources. They are approximate only. The actual weight of raw material required will depend upon the mix of denominations and the size of coin. This weight may be established by your own staff.

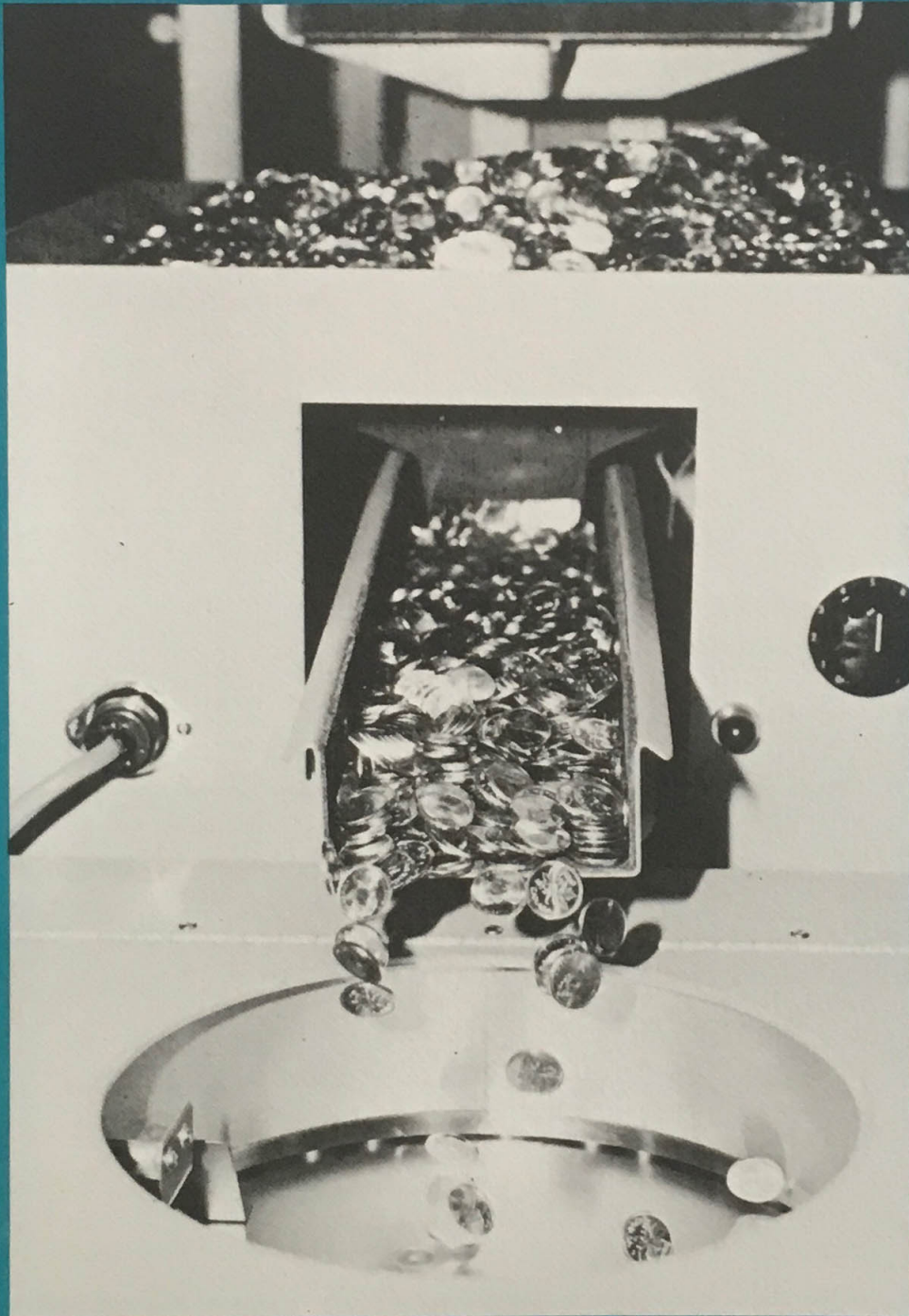
The basic capital and operating costs established from the cost sheets exclude the following:

- Land and servicing of the site
- Engineering and construction management fees
- Interest during construction
- Commissioning and initial start-up
- Raw material inventory
- Supplies, stores and consumables
- Import duties and insurance
- Annual cost of building services
- State taxes.

ACRES CONSULTING SERVICES LIMITED

Metals, Mining and Heavy Industrial Group
5259 Dorchester Road
Niagara Falls, Canada
L2E 6N8

Telephone 416-354-3831 Telex 021-5107 TWX 610-376-0680



Winnipeg
Mint

Monnaie de
Winnipeg

Branch of the
Royal Canadian
Mint

Succursale de la
Monnaie royale
canadienne





Official inauguration Inauguration officielle

April thirtieth, nineteen hundred and seventy-six
Le trente avril mil neuf cent soixante-seize

Program

Introduction by Denis Cudahy,
General Manager of the Winnipeg Mint.

Address by Yvon Gariépy,
Master of the Royal Canadian Mint

Official inauguration by the
Honourable Jean-Pierre Goyer, P.C., M.P.,
Minister of Supply and Services

Tour and refreshments.

Programme

Introduction faite par M. Denis Cudahy,
Administrateur de la Monnaie de Winnipeg

Discours de M. Yvon Gariépy,
Directeur général de la Monnaie royale canadienne

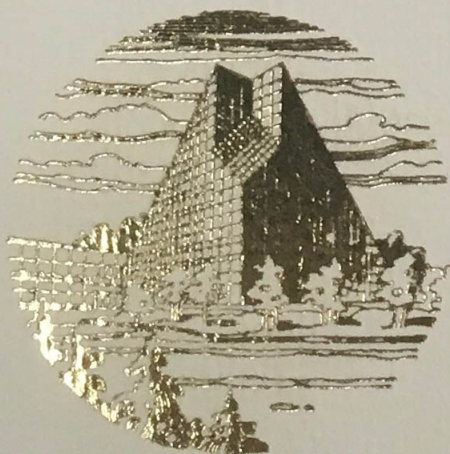
Inauguration officielle faite par
l'honorable Jean-Pierre Goyer, C.P., M.P.,
ministre des Approvisionnements et Services

Visite et goûter.



Royal Canadian
Mint

Monnaie royale
canadienne





Royal Canadian
Mint

Monnaie royale
canadienne

April 29, 1976

Dear Guest:

Welcome to Winnipeg! I am delighted to greet you, and I wish to extend this greeting to you in this letter, since, unfortunately, I cannot meet all guests face to face with a warm handshake at this time.

I want you to know that the Royal Canadian Mint is grateful for the privilege of your presence; and I hope your visit will be pleasant and enjoyable. You will find herewith a programme of the inauguration of the Winnipeg Mint, leaflets and some general information on the city.

I am looking forward to meeting you at the Winnipeg Mint.

Sincerely,

Yvon Gariépy,
Master of the Mint



The Library
of Parliament

La Bibliothèque
du Parlement



Royal Canadian
Mint

Monnaie royale
canadienne

Introduction

The Library of Parliament is a very special library, historically, in appearance and in its function. Originally formed from the legislative libraries of Upper and Lower Canada in 1876, the library and its predecessors have been plagued with disasters: the burning of York in 1813, the destruction of Montreal's Parliament Buildings in 1849, the fire in 1854 and the trials of travel from Kingston, to Montreal, to Toronto, to Quebec City, to Toronto, to Quebec City and finally to Ottawa.

As a library with a special clientele, the library of Parliament exists to meet the needs of Parliament. The library features a highly skilled staff of librarians, support staff and a Research Branch with subject specialists who assist Parliamentary Committees and delegations. To mark the hundredth anniversary of the opening of the Library of Parliament, the 1976 silver dollar will carry a special design depicting a replica of the building housing the library.

The reverse design of the 1976 nickel dollar will bear the design of the Indian and Voyageur in a canoe, designed by Emanuel Hahn, which appeared on the first Canadian Silver Dollar in 1935.

Introduction

Par son histoire, son aspect et son rôle, la Bibliothèque du Parlement offre un caractère bien particulier. Elle est née en 1876 de la fusion des bibliothèques parlementaires du Bas et du Haut-Canada, lesquelles avaient survécu à plusieurs catastrophes, dont la conflagration de York en 1813, la destruction des édifices parlementaires à Montréal en 1849 et l'incendie de 1854, ainsi qu'aux péripéties de déménagements répétés de Kingston à Montréal, Toronto, Québec, Toronto, Québec et, finalement, Ottawa.

La Bibliothèque dessert une clientèle spéciale: le Parlement canadien. Elle est dotée d'un groupe de bibliothécaires des plus compétents, d'un personnel de soutien et d'un Service de recherche dont les experts assistent les comités parlementaires et les délégations.

Pour marquer le centenaire de la Bibliothèque du Parlement en 1976, une pièce d'un dollar en argent sera frappée; le revers représentera l'édifice de la Bibliothèque.

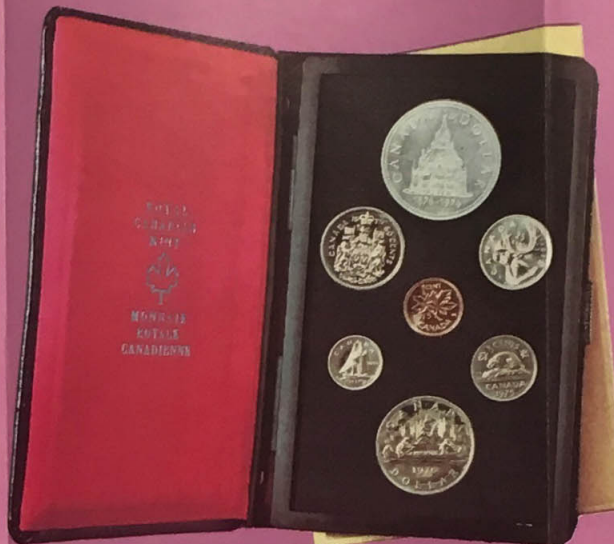
Le revers de la pièce de nickel évoquera l'Indien et le voyageur en canot, ce dessin crée par d'Emanuel Hahn apparaissait en 1935, sur le premier dollar frappé au Canada.

The 1976 silver dollar commemorates the 100th Anniversary of the opening of the Library of Parliament. The reverse design on the coin depicts a replica of the Library of Parliament. The words "Canada" and "Dollar" appear above the building and the dates 1876-1976 appear below.

The coin is sealed in a clear crystal styrene capsule which is held in a black styrene holder. The unit is encased in a black simulated leather case with a red flocked lining. On the top of the case is imprinted the Canadian Coat of Arms. The price of the dollar is \$4.00.

Le dollar en argent de 1976 commémore le centenaire de l'inauguration de la Bibliothèque du Parlement. Le revers montre une réplique de la Bibliothèque du Parlement. Les mots "Canada" et "Dollar" apparaissent au-dessus de l'édifice et les dates 1876-1976 figurent en-dessous.

La pièce est revêtue de styrène cristallin et placée sur un support de styrène noir. Elle est enfermée dans un étui de simili-cuir noir doublé de satin rouge dont le couvercle porte les Armoiries du Canada. Son prix a été fixé à \$4.00.

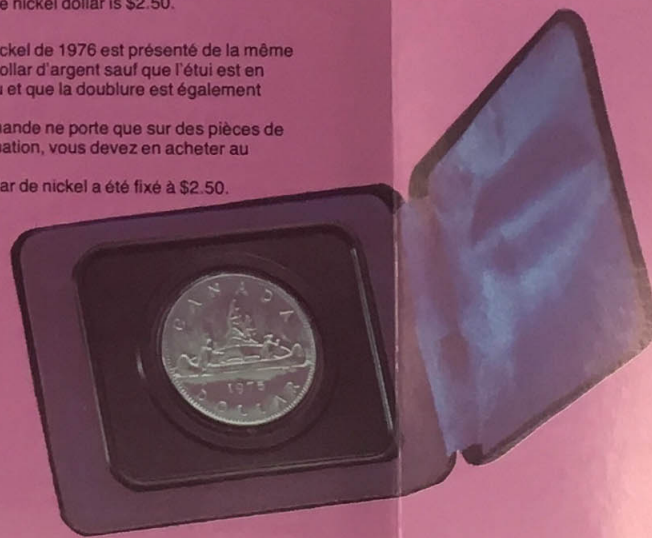


The 1976 nickel dollar is packaged in the same manner as the silver dollar but in a blue simulated leather case with a blue flocked interior. A minimum order of three must be placed if no other coins are being ordered. The price of the nickel dollar is \$2.50.

Le dollar de nickel de 1976 est présenté de la même façon que le dollar d'argent sauf que l'étui est en simili-cuir bleu et que la doublure est également bleue. Si votre commande ne porte que sur des pièces de cette dénomination, vous devez en acheter au moins 3. Le prix du dollar de nickel a été fixé à \$2.50.

Our finest set continues with the improved packaging which was introduced in 1974. The encapsulated set, held in a plastic frame, allows you to view both sides of the coins. The genuine leather case is satin lined and has a three dimensional silver plated oxidized casting of the Canadian Coat of Arms on the cover. The case comes in a golden velour sleeve with white presentation box. All seven coins in this set are struck two blows while in the coining press. This is the only set which contains both the silver and nickel dollars. The price of the set is \$16.00.

Notre plus bel ensemble, avec les améliorations que nous y avons apportées en 1974, est toujours disponible. L'ensemble, sous plastique, permet de voir le revers et l'avvers de la pièce. L'écrin en cuir véritable est doublé de satin et porte, sur le dessus, un moulage en relief argenté et oxydé des Armoiries du Canada. L'écrin recouvert de velours doré est protégé par un étui. Chacune des sept pièces de l'ensemble est frappée deux fois. Seul cet ensemble contient les dollars en argent et de nickel. Son prix a été fixé à \$16.00.





The second set of cased coins is very popular with many of our customers for use as a gift item for birthdays, graduations or anniversaries. The set displays the reverse design of the nickel dollar and the other coins from 1¢ to 50¢. An additional 1¢ coin shows the obverse design.

The coins are contained in a very attractive simulated maroon leather case.

The price of this set is \$8.15.

Le deuxième ensemble sous écrin reste très populaire auprès de plusieurs qui l'offrent en cadeau de fêtes, d'anniversaires de naissance ou à l'occasion de la collation des grades. L'ensemble présente le revers du dollar de nickel et des autres pièces de 1 cent à 50 cents. Une pièce supplémentaire d'un cent permet de montrer le dessin à l'avers.

Les pièces se présentent dans un écrin en simili-cuir d'un beau rouge foncé.

Son prix a été fixé à \$8.15.



Our regular, uncirculated set sealed in a clear polyester film has been our standard set since 1961. The set contains a nickel dollar and one of each of the other five denominations.

The price of the set is \$5.15.

Notre ensemble ordinaire de six pièces hors-circulation scellées entre deux pellicules de polyester — que nous offrons depuis 1961, vous est encore offert cette année. Il comprend un dollar de nickel et un exemplaire de toutes les autres pièces canadiennes de 1 à 50 cents.

Son prix a été fixé à \$5.15.

ORDER PERIODS AND QUANTITIES

Orders will be accepted on January 1, 1976 but the date of shipment will, in each case, be determined by the volume of orders received, and other circumstances.

Due to the costs of packaging and shipping separate dollars, the minimum order for nickel dollars in cases is three.

Orders for separate dollars and sets of coins will be filled in strict sequence of date of receipt.

THE CLOSING DATE FOR THE ACCEPTANCE OF ALL ORDERS FOR 1976 COINS WILL BE OCTOBER 31, 1976.

ADDRESS FOR ORDERS

Orders should be sent to the following address:

**"Coins Uncirculated",
Post Office Box 470,
Ottawa, Ontario.
K1N 8S5**

PRICES AND METHOD OF PAYMENT

The prices shown on the Order Form cover all costs of handling and delivery, but the Mint is not responsible for any duty which may be charged on items on entry to a foreign country.

Each order must be accompanied by a covering remittance which must take form of a money order, bank draft or certified cheque.

PLEASE DO NOT SEND CASH

Customers are warned that orders accompanied by an uncertified cheque will be delayed for a minimum period of sixty days while the cheque is cleared by the banks.

IMPORTANT NOTES

Prices and terms of sale are subject to change without notice.

No cancellation of orders or refunds of remittances will be considered.

The Mint reserves the right to refuse orders should it be found for any reason necessary to do so.

All coins illustrated in this brochure are sold as uncirculated.

Coins shown in the photographs are for purposes of illustration only. All coins sold will bear the date 1976.

PÉRIODE DE COMMANDE ET QUANTITÉS

Les commandes seront acceptées à partir du premier janvier 1976, mais la date de livraison sera fixée en fonction du volume des commandes et autres circonstances.

Vu les frais d'emballage et d'expédition des pièces d'un dollar, on a fixé à trois la commande minimum de dollars de nickel.

Les commandes des pièces d'un dollar et des ensembles de pièces seront honorées dans l'ordre de leur date de réception.

LA DATE LIMITE DE RÉCEPTION DES COMMANDES DES PIÈCES DE 1976 A ÉTÉ FIXÉE AU 31 OCTOBRE 1976

OU ADRESSER VOS COMMANDES?

Veuillez adresser vos commandes à l'adresse suivante:

**"Pièces hors-circulation",
Case postale 470,
Ottawa, Ontario.
K1N 8S5**

PRIX ET MODALITÉS DE PAIEMENT

Les prix indiqués sur le bulletin couvrent tous les frais de manutention et de livraison, mais la Monnaie ne prendra pas à sa charge les droits qui pourraient être perçus sur les articles à leur entrée dans un pays étranger.

Chaque commande doit être accompagnée du montant correspondant sous forme de mandat-poste, traite de banque ou chèque visé.

PRIÈRE DE NE PAS ENVOYER D'ESPÈCES

Nous prévenons nos clients que les commandes accompagnées d'un chèque non visé resteront en souffrance pendant la durée minimum de 60 jours nécessaires aux banques pour virer le chèque.

AVIS IMPORTANT

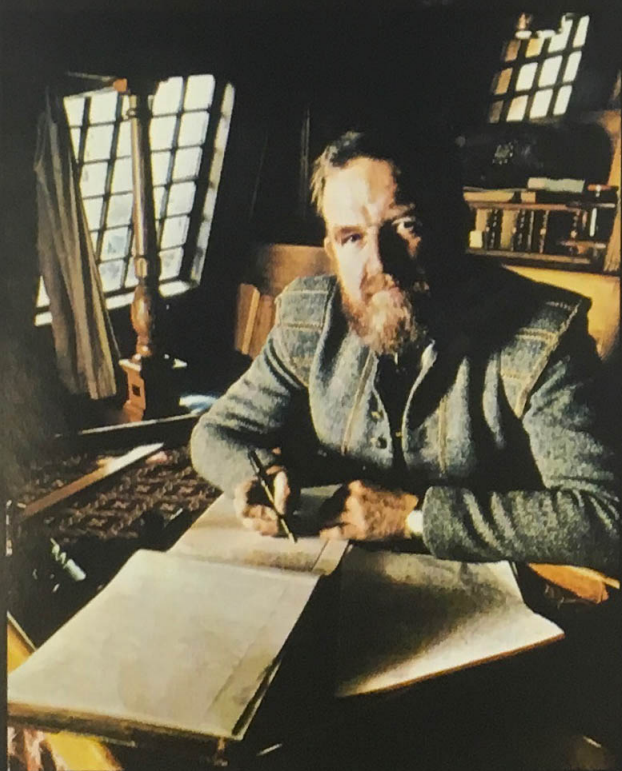
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Toutes les pièces reproduites dans ce dépliant sont des pièces neuves hors-circulation.

Les pièces illustrées dans les photos sont à titre d'exemple seulement. Toutes pièces vendues porteront le millésime 1976.

The MANITOBA MUSEUM of MAN AND NATURE



more than the past ...

THE MUSEUM

Time and space, man and nature, life and death—all make up the warp and woof of the experience you'll awaken within yourself at the Manitoba Museum of Man and Nature.

Be a time traveller, millions of years into the past as you stand beside a sea as it might have looked four million years ago, alive with the life that has long since become stone.

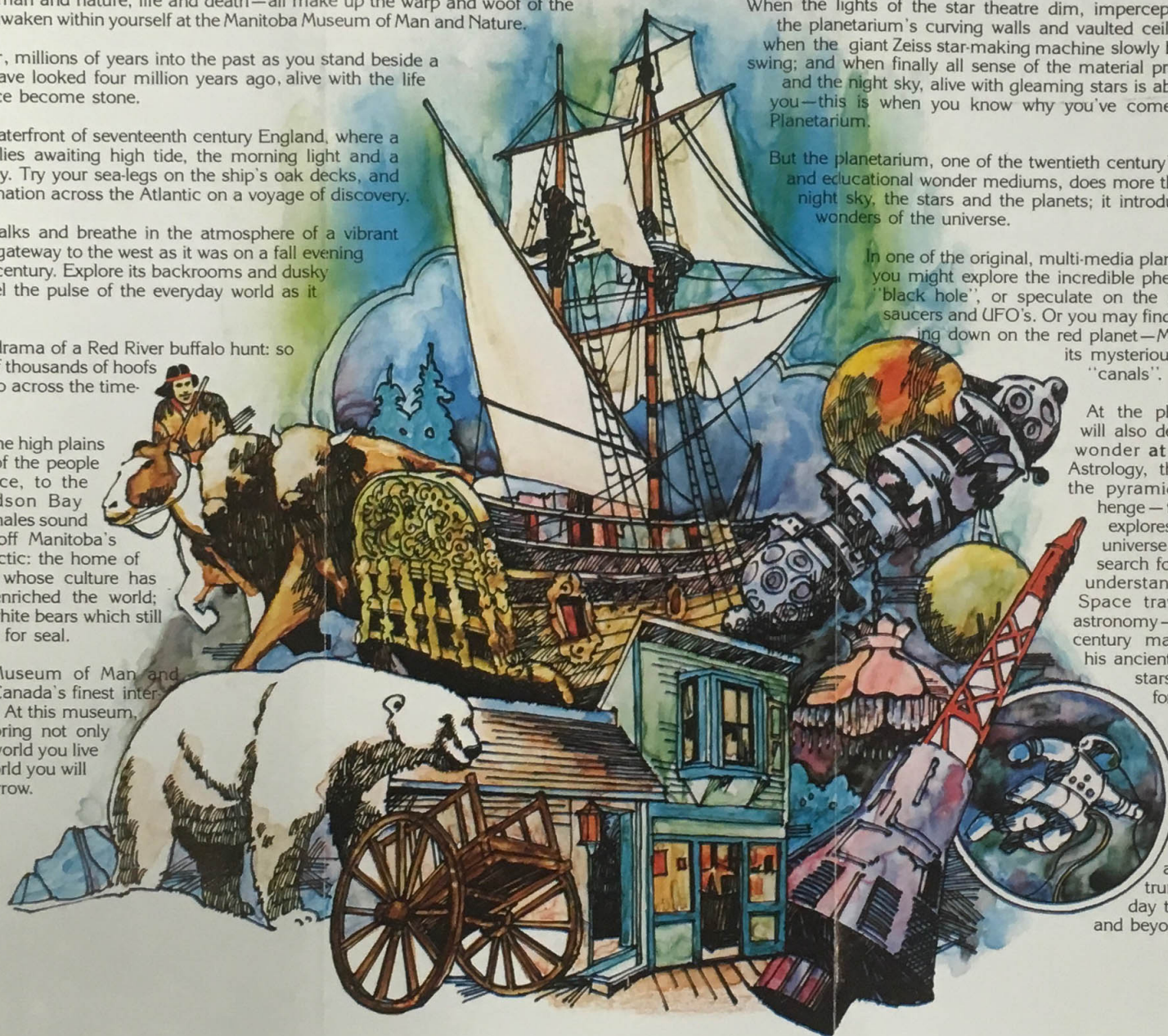
Move along the waterfront of seventeenth century England, where a two-masted ship lies awaiting high tide, the morning light and a voyage into history. Try your sea-legs on the ship's oak decks, and follow your imagination across the Atlantic on a voyage of discovery.

Stroll the boardwalks and breathe in the atmosphere of a vibrant young city at the gateway to the west as it was on a fall evening at the turn of the century. Explore its backrooms and dusky alleyways and feel the pulse of the everyday world as it once was.

Take in the high drama of a Red River buffalo hunt: so real the thunder of thousands of hoofs still seems to echo across the time-swept prairies.

Now move from the high plains and rich culture of the people of the Sun Dance, to the Arctic and Hudson Bay where the white whales sound the chill waters off Manitoba's coastline. The Arctic: the home of the Inuit people, whose culture has fascinated and enriched the world; and of the great white bears which still hunt the ice floes for seal.

The Manitoba Museum of Man and Nature is one of Canada's finest interpretive museums. At this museum, you'll enjoy exploring not only the past, but the world you live in now and the world you will be living in tomorrow.



THE PLANETARIUM

When the lights of the star theatre dim, imperceptibly immersing the planetarium's curving walls and vaulted ceiling in darkness; when the giant Zeiss star-making machine slowly begins its diurnal swing; and when finally all sense of the material present falls away and the night sky, alive with gleaming stars is above and around you—this is when you know why you've come to Winnipeg's Planetarium.

But the planetarium, one of the twentieth century's entertainment and educational wonder mediums, does more than recreate the night sky, the stars and the planets; it introduces you to the wonders of the universe.

In one of the original, multi-media planetarium shows, you might explore the incredible phenomenon of a "black hole", or speculate on the reality of flying saucers and UFO's. Or you may find yourself touching down on the red planet—Mars—to explore its mysterious ice caps and "canals".

At the planetarium you will also delve into man's wonder at the universe. Astrology, the meaning of the pyramids and Stonehenge—the planetarium explores not only the universe itself, but man's search for meaning and understanding within it. Space travel and radio astronomy—man's 20th century manifestations of his ancient interest in the stars—are all here for you to discover.

The planetarium is an experience you can't afford to miss. The planetarium will take you along the spectrum from yesterday to tomorrow—and beyond.

THE MUSEUM

more than the past ...
now and tomorrow.

THE PLANETARIUM

tomorrow and beyond.

The Manitoba Museum of Man and Nature and the Planetarium, together invite you to explore worlds—and worlds within worlds. These two unique facilities have integrated man, nature, the past, present, the future—the universe, into a sweeping conceptual panorama. Worlds will open up to you through wrap-around exhibitions and displays in which you are the centering point. The dramatic effects of high-technology light and sound presentations merge with artifacts hundreds, thousands, even millions of years old. A trip to the planets and distant stars, space travel and science fiction—all are possible here. Or travel the biomes of Manitoba from the aurora-lit Arctic to the history-swept grasslands of the south. It's all here—awaiting only you to discover. And you'll discover that this museum and this planetarium together are more, much more than the past.

PLANETARIUM HOURS

Summer (July & August)

Saturday, Sunday & Holidays* 1:00, 2:30, 4:00, 7:30, 9:00 p.m. / Monday 2:00, 3:30 p.m. (except holidays)*

Tuesday–Friday 11:00, 2:00, 3:30, 7:30, 9:00 p.m.

Winter (September through June)

Tuesday–Friday 3:15 and 8:00 p.m. / Saturday & Holidays*

1:00, 2:30, 4:00, 7:30, 9:00 p.m. / Sunday 1:00, 2:30, 4:00

Monday closed except holidays*

*The Planetarium is open on all public holidays except Christmas. Additional showings on most school holidays.

Hall of Astronomy

Be sure to visit this unique exhibit area depicting the history of astronomy, space travel and related information.

Live from the sun—a solar telescope enables you to observe sun spots, the sun's rotation, and even an eclipse if you're lucky enough to be there while one is occurring.

Hall of Astronomy Hours

Summer (July & August)

Saturday, Sunday & Holidays* 12:00–10:30 p.m. / Monday

12:00 noon–5:00 p.m. / Tuesday–Friday 10:30–10:30 p.m.

Winter (September through June)

Tuesday–Friday 2:00 p.m.–9:30 p.m. / Saturday & Holidays*

12:00 noon–10:30 p.m. / Sunday 12:00 noon–5:30 p.m.

(closed Mondays except holidays*).

*The Hall of Astronomy is open on all public holidays except Christmas.

Admission

Hall of Astronomy—Admission free / Planetarium Public Show

Adults—\$1.50 / Students with cards—\$1.00 / Children under

12 years and Senior Citizens—\$.75 / Children under 6 years not admitted.

MUSEUM HOURS

Mid-May to Mid September

Monday–Saturday & Holidays 10:00 a.m.–9:00 p.m.

Sunday 12:00 noon–9:00 p.m.

Mid-September to Mid-May

Tuesday–Saturday 10:00 a.m.–9:00 p.m. / Sundays & Holidays

12:00 noon–6:00 p.m. / Mondays 10:00 a.m.–4:00 p.m.

except holidays.

Admission

General—\$.50 / Family—\$2.00 (maximum) / Senior Citizens &

Children under 6 (with adult)—Free / School Groups—

\$.25 per person.

Museum Gift Shop

Features books, Eskimo sculpture, posters, lapidary and astronomical items.

PROGRAM INFORMATION

Museum—Phone 943-3139

Planetarium—Phone 943-3142

Education—Phone 943-3204

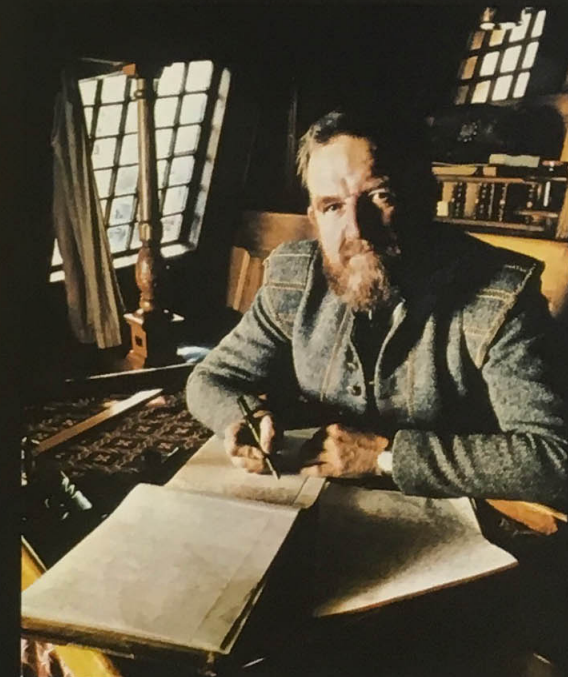


**MANITOBA
MUSEUM OF MAN
AND NATURE**

190 Rupert Avenue
Winnipeg, Manitoba R3B 0N2

Telephone 956-2830

The MANITOBA MUSEUM of MAN AND NATURE



more than the past ...



Proclamation

WHEREAS a branch of the Royal Canadian Mint is located in Winnipeg;

AND WHEREAS the Winnipeg Mint is considered the world's most modern Mint;

AND WHEREAS the Winnipeg Mint will provide an educational experience for the citizens of Winnipeg;

AND WHEREAS it is desirable that the attention of the public be directed to the Winnipeg Mint as one of the City's major tourist attractions;

AND WHEREAS the Inauguration of the Winnipeg Mint will take place on Friday, April 30th, 1976;

NOW, THEREFORE, I, Stephen Juba, Mayor of the City of Winnipeg, in the Province of Manitoba, do hereby proclaim Friday, April 30th as:

MINT DAY IN WINNIPEG

DATED at Winnipeg this 22nd day of April, 1976.

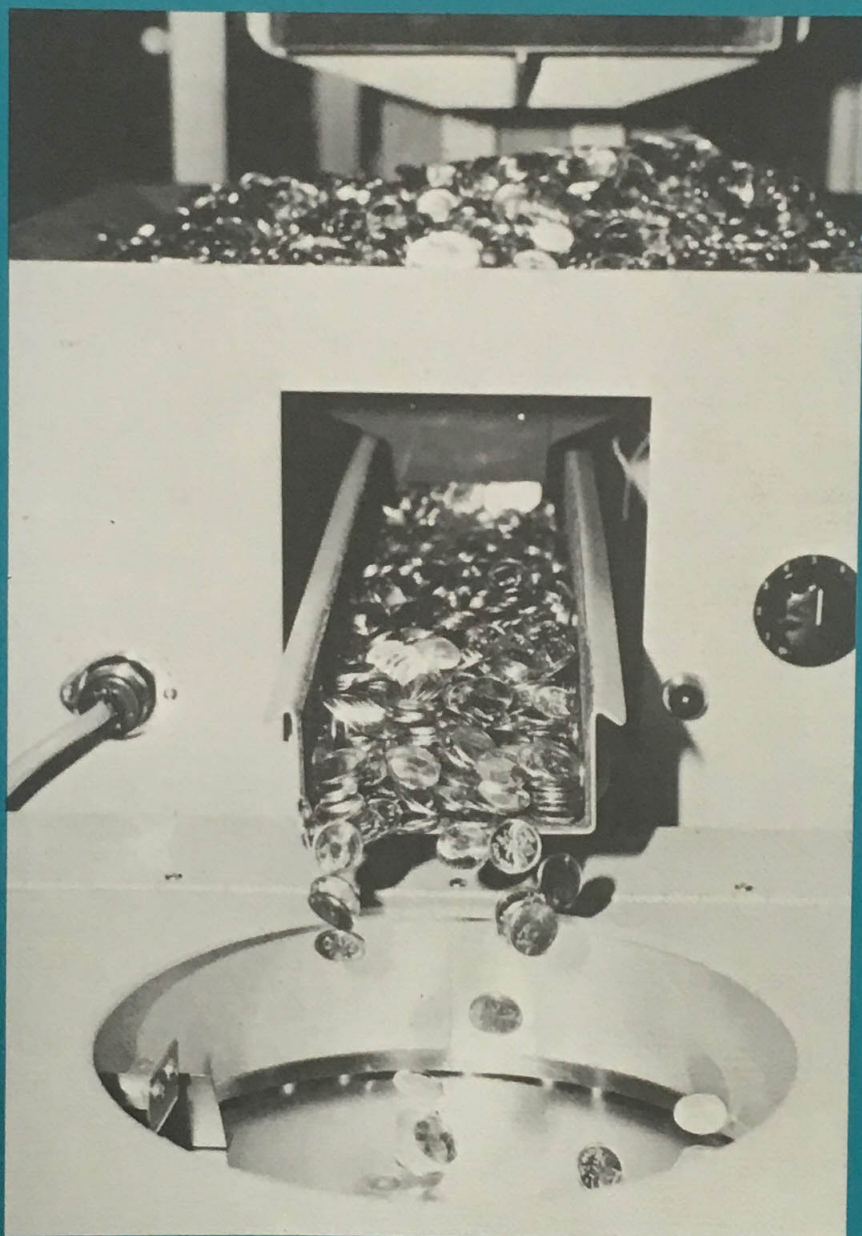
MAYOR



"GOD SAVE THE QUEEN"

ACRES

MODUMINT.®



What is Modumint?

Modumint is the name given to the modular design of a plant to produce coins. Each module is a self-contained production unit with a marketable end product. The modular approach offers a variety of options for future growth with relatively low initial cost.

What are the advantages?

Sovereign states may produce their own national coinage. This is a major advantage in countries which are rapidly expanding their industrial bases. The generation of business activity demands an increasing circulation of coinage.

How many coins will it make?

Modumint is designed for a production of between 200 and 600 million coins per year. The design is such that this can be more than doubled with very little additional cost.

How much will Modumint cost?

Every situation is unique. The economics of the operation depend entirely on the cost basis adopted by government. However, the **Modumint** system offers low capital cost options. Details can be supplied at initial discussions on performance.

What are the benefits of the Modumint system?

- A means of entering coin production on an economic scale
- Expansion and growth potential
- A training ground for special skills in machine tools
- Expansion by modules offers the most modern technology
- Construction time is short.

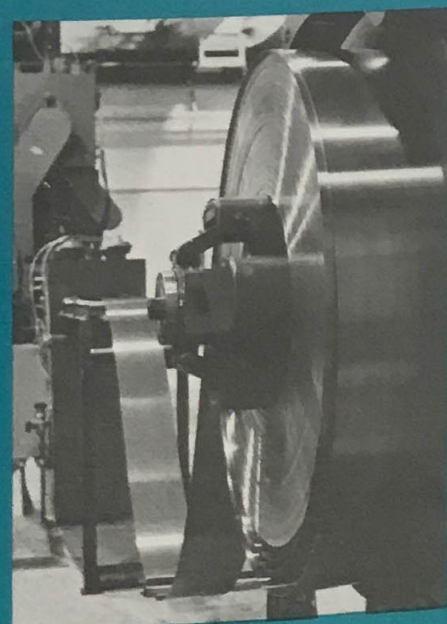
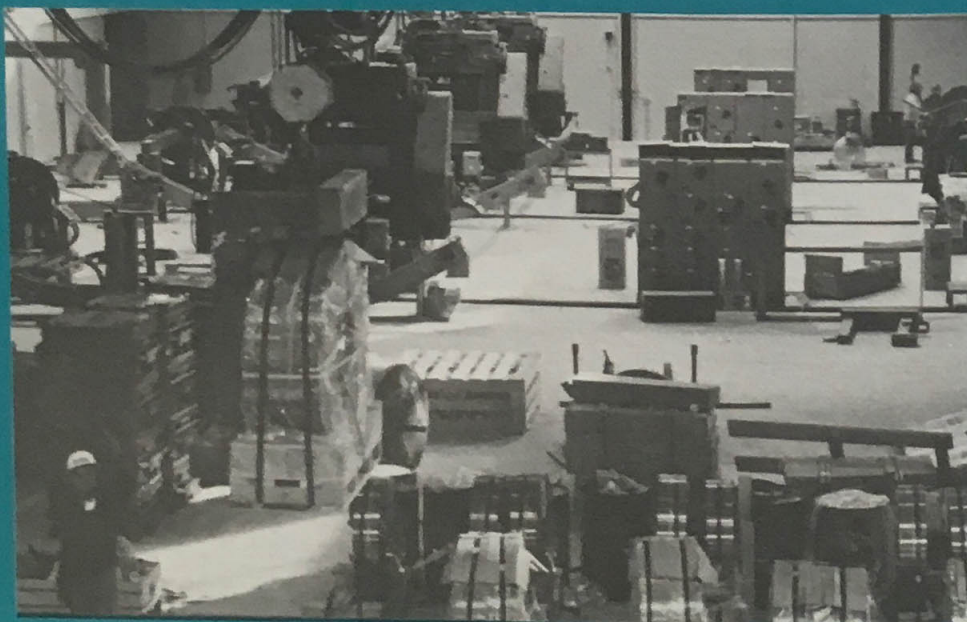
Conditions in favor of Modumint

Unless it is government policy to establish its own minting facilities without regard to volume, **Modumint** depends upon a market potential of between 200 and 600 million coins per year.

Many mints in the world today undertake a high level of foreign business. Although this is a competitive market, it offers the opportunity to improve profitability through high-volume production.

In general, conditions are most favorable when:

- living standards are rising
- a substitute is sought for paper currency
- a labor force with training potential is available
- independence is sought from overseas suppliers.



In some instances, **Modumint** may be justified as a replacement for an existing plant, or as a new centre of coin production more attuned to a changing distribution pattern.

Whatever the reasons may be, the **Modumint** system is flexible and offers an infinite variety of options.

Options of Modumint

In applying the modular approach to the development of a minting facility, a number of optional modes are available.

- A nation of small geographical area and large population centres may develop a single minting facility. The modular approach permits a programmed expansion until self-sufficiency in coin production is reached. Increasing the capacity allows for entry into export markets.
- A nation of large geographical area and dispersed population may develop minting facilities at selected production centres, located as the distribution pattern of population dictates.
- A group of geographically and politically close nations may jointly develop the primary minting modules in a central location. Final coining modules could then be located in the individual nations concerned.

Designed Modules of Modumint

The basic process modules offered are:

- blanking
- blank preparation
- coining

All modules have inbuilt planned expansion capability and a designed tie-in to future modules.

The basic process modules contain facilities for raw material and finished coin storage and handling, administrative offices, and employee service areas. All facilities are planned for expansion as further modules are added.

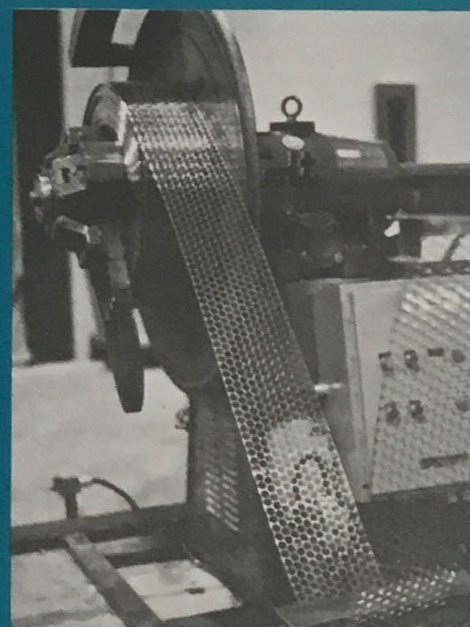
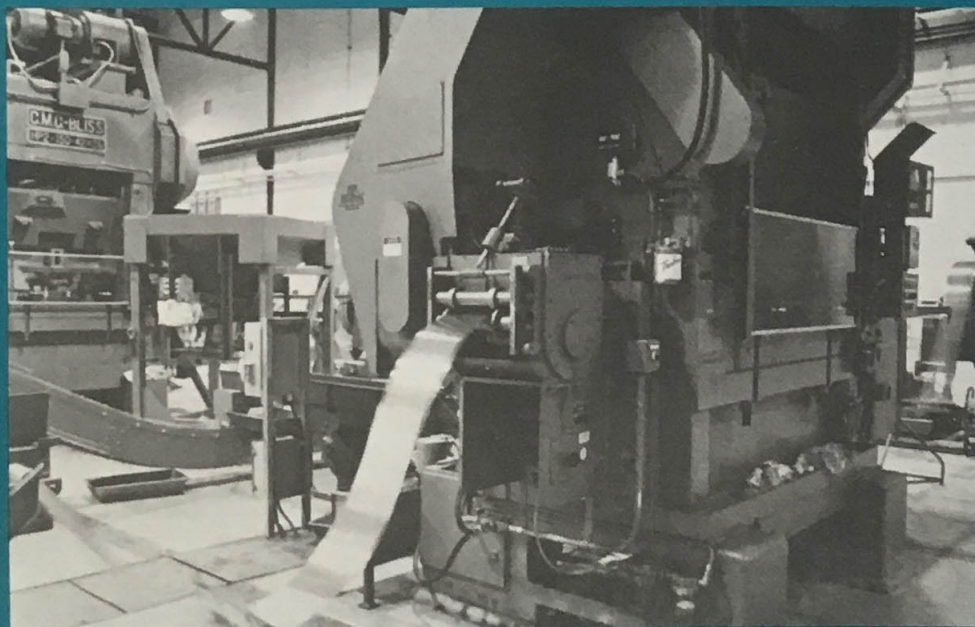
In addition to the basic process, additional modules are available as follows:

- engraving
- die manufacturing
- maintenance shops
- numismatic section

Although referred to as modules, these facilities or parts thereof may be incorporated into or added to any module during the build-up of the overall mint plant.

The **Modumint**, if so desired, could be made completely self-sufficient by the addition of a Melting, Casting and Rolling facility to convert raw material to a workable end product.

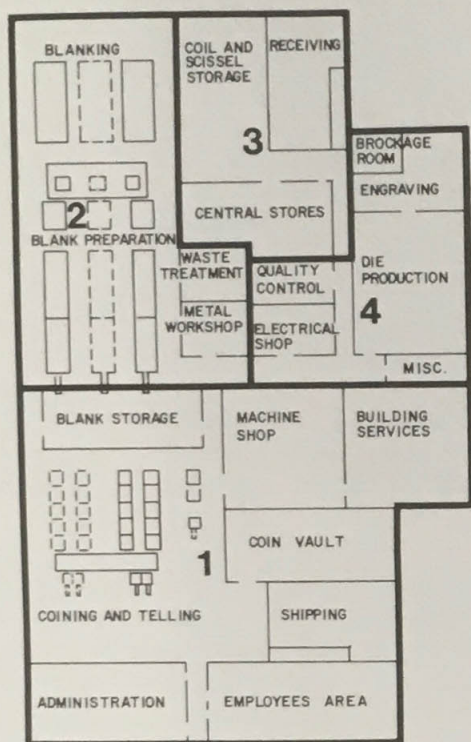
This facility could also be developed with a pre-engineered modular approach. For further information, refer to Acres Brochure entitled "**Modumill**".



A typical example of The Modumint Concept

Scheme 1

For purposes of illustration, the development mode of Scheme 1 is described. This scheme is based on an annual output of 200 million coins per year. The initial module produces coins from purchased prepared blanks and works back to a total facility in which the raw material is coiled strip.



0 20 40 60 80 100
SCALE IN FEET

Module 1

This is the coining module for the production of finished coin. The incoming raw material consists of cleaned and annealed blanks.

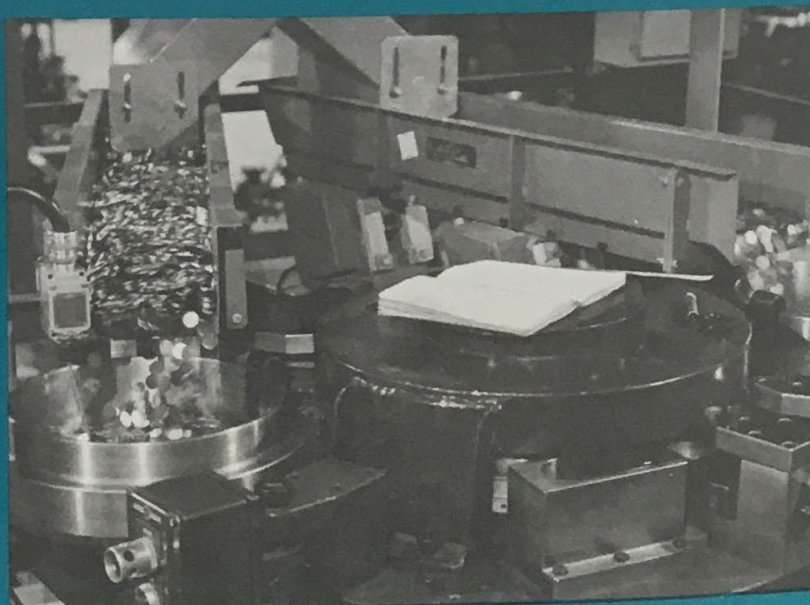
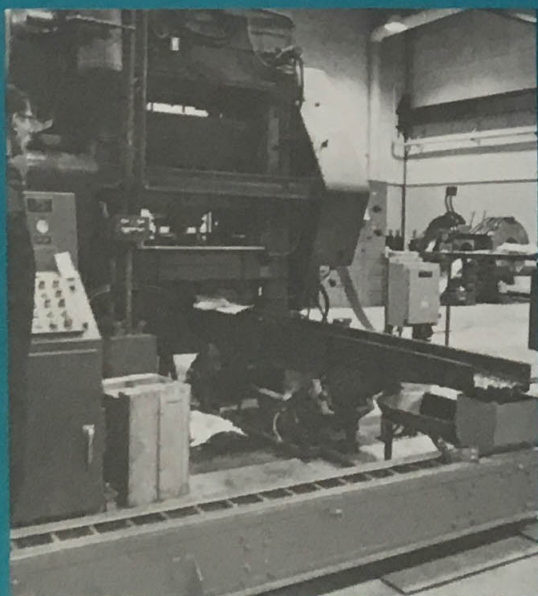
Equipment is provided for weighing, conveying, striking the coin, counting and bagging. Additional facilities include raw material receiving and storage, finished coin storage and shipping, administrative office and employee services areas. Die making and/or maintenance facilities may be included at this stage.

Module 2

The blank preparation module has been added to the coining module. The incoming raw material is now plain untreated blanks. This second module contains equipment for edge marking, annealing and cleaning the blanks prior to the final coining operation.

Module 3

The addition of Module 3 completes the coin production unit. This module contains the blanking presses which punch the plain blanks from strip. The incoming raw material is coiled strip for which a warehouse area with handling facilities is provided.



Module 4

This module contains the engravers studio, die production facility and the maintenance shops. Although referred to as a module, some of the facilities may be included with preceding modules if required. This applies particularly to the maintenance shops. The facilities in this module will vary depending upon the degree of in-house maintenance required and the extent of diemaking undertaken. For purposes of discussion, the module could contain:

- machine shop with lathes, drills, milling machines, etc.
- general workshop with welding equipment, shapers, bending brakes, etc.
- die production shop with turning lathes, grinders, hobbing press, heat treatment equipment and chromeplating rooms
- engravers studio

Action needed to develop the concept for a specific region and market

Before a general concept such as this can be fully assessed, it must be studied in terms of specific requirements.

The essential elements of the concept development and assessment are:

- market and market potential
- material and labor availability
- conceptual technical studies and financial projections.

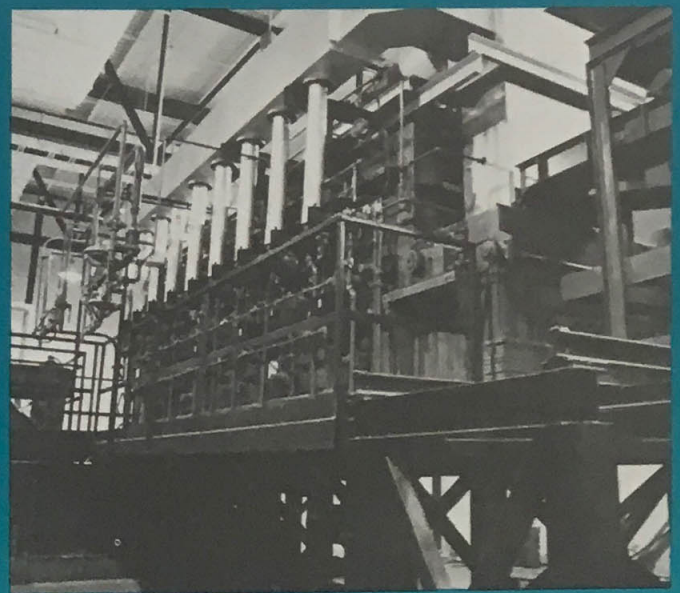
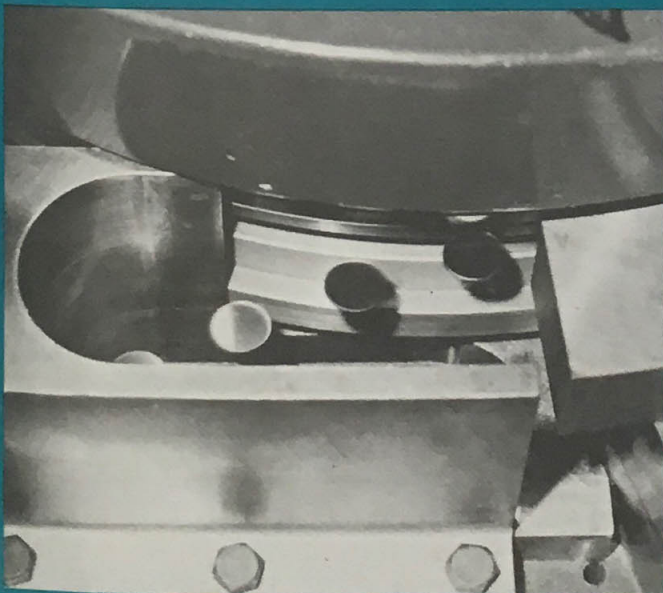
The studies should be developed on a task force basis between the consultant and the owner.

Acres related experience

For over 50 years Acres has provided consulting engineering services to industry in Canada and around the world.

Since 1967 Acres has been retained by the Royal Canadian Mint for the conceptual and detail design of their new minting facility in Winnipeg, Manitoba. During this period Acres services to the Mint have included:

- total conceptual design and development of design criteria for overall mint facility
- detail design, layout, equipment selection and procurement of all process, maintenance and die production systems
- supervision of equipment installation, start-up and commissioning to full production output
- development of production control, financial control and quality assurance programs
- advisory services related to organization structures, personnel and materials management, raw material specifications and all other matters associated with the commencement of operations in a new plant
- detailed investigation and reports on existing mint facility including:
 - materials and methods of die production
 - time and motion studies on existing process and optimization of layout in Numismatic Division.



Project and Construction Management

Acres can undertake all aspects of project and construction management as may be required. These services can include field management and supervision to administer all contracts for construction and related work performed by contractors and subcontractors.

Inspection and monitoring of construction work is continuously performed through to commissioning.

Construction schedules and cost control procedures are prepared and maintained.

Specification and purchasing of equipment, expediting, inspection and shipping are undertaken.

Surveying services are available to maintain dimensional control of the construction work.

Commissioning and Initial Operation

Acres can provide the services of a production manager and skilled operating staff to test equipment, start systems and commission the total plant to full operating capacity.

During this commissioning period, the skilled operating staff will provide training programs until the local staff has attained the capability of running the facility at maximum efficiency.

Equipment Selection

All equipment specified for **Modumint** would be of proven quality from reputable and reliable manufacturers. The equipment would be of standard construction and customized only to the extent necessary to meet specific requirements.

Specific Layouts and Costs

Specific layouts and detailed cost estimates could only be developed once the basic requirements are established. Other factors apart from the production requirements are involved. Consideration must be given to such items as security systems, facilities for the visiting public, administrative structures and their location, etc.

Acres experience in mint design and organization would enable a detailed proposal to be prepared with minimum delay.

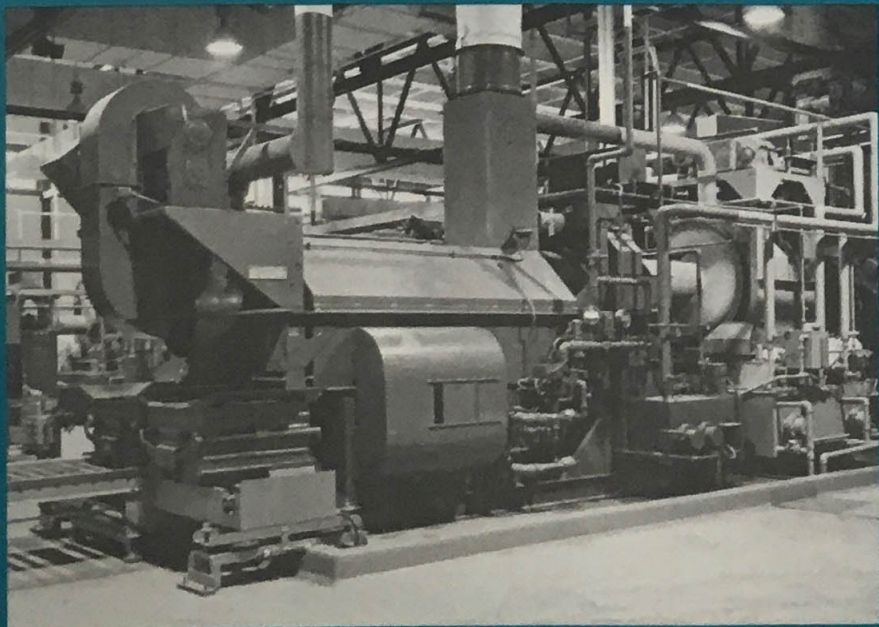
The Minting Process

Blanking

In the completed facility comprising all three basic production modules, the blanking process would be the first stage of coin manufacture.

Coiled strip of the required composition and thickness is passed automatically through high-speed blanking presses. Within these machines, multiple die sets press circular or other shaped blanks from the strip.

The remaining 'skeleton' or scissel is recoiled for return to the supplier as scrap. Approximately 75 per cent of the raw material is converted to usable blanks.



Blank Preparation

Preparing the blanks for coining entails a number of distinct processes.

Edge marking — the blanks are passed through special-purpose machines in which each blank is rotated under pressure between a fixed segment and a rotating disc. This action imparts a raised edge on the blank and/or impresses any lettering required around the edge.

Washing — The edge-marked blanks are passed through automatic washing machines to remove any residual oil before being heat treated in the annealing furnaces.

Annealing — Depending upon the type of material being processed, an annealing stage may be required. The most commonly used materials for coinage (cupronickel, nickel and bronze) would be supplied in a relatively hard condition, to minimize damage during shipment. Further work hardening would take place in the punching and edge marking of the blanks. To soften the blanks for coining, they are passed on a slow-moving belt through furnaces operating at temperatures of 1,400 to 1,800 degrees F. Once at temperature, the blanks are quenched to room temperature. This process is carried out in a specially generated atmosphere that prevents oxidation and imparts a bright finish.

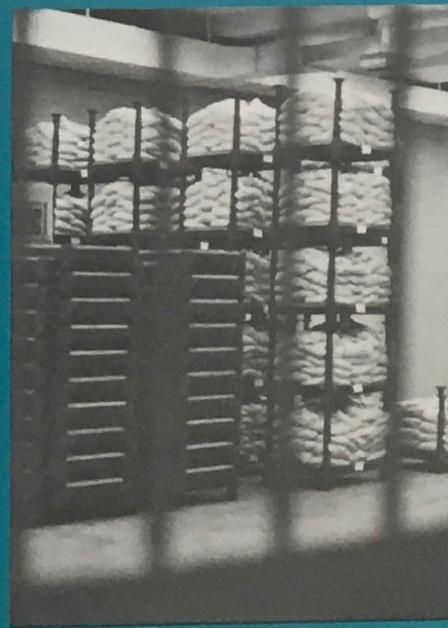
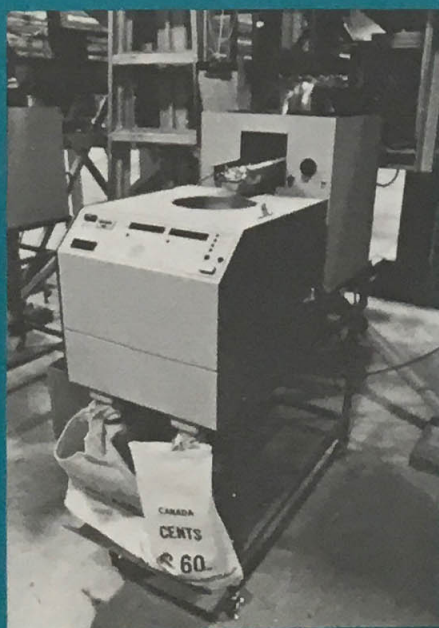
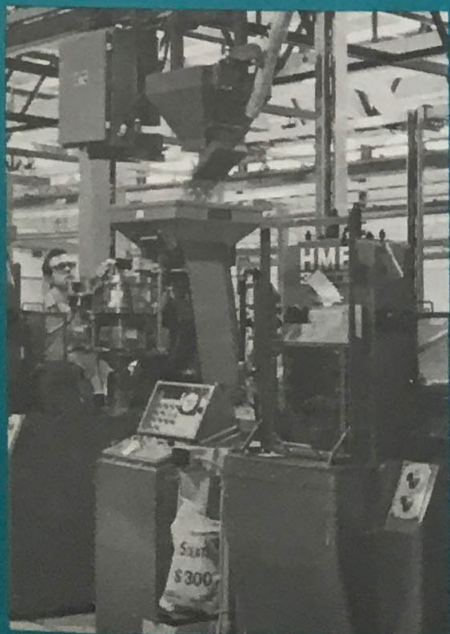
Cleaning — As a last stage before coining, the bright annealed blanks are thoroughly cleaned in automatic tumbling action cleaning units. These units utilize various cleaning compounds, depending upon the metal being processed. For example, bronze would be 'pickled' in a mild sulphuric acid solution whereas cupronickel would require only a detergent solution.

The tumbling action of the cleaning units also provides a burnishing effect, thus further improving the surface appearance of the blank.

Coining

This is the final stage of the minting process. The cleaned and softened blanks are fed automatically into the coining presses. Within each press the blanks are presented at high speed (up to 300 pieces every minute) into a 'collar' of the exact configuration and size of the finished coin. While held by the collar, the blank is 'squeezed' between two dies containing the obverse and reverse image of the coin. This squeezing action causes the metal to flow into all the available space, thus taking the impression from each die.

The finished coins are ejected from the presses and passed through automatic counting machines into bags or other containers in preset quantities.



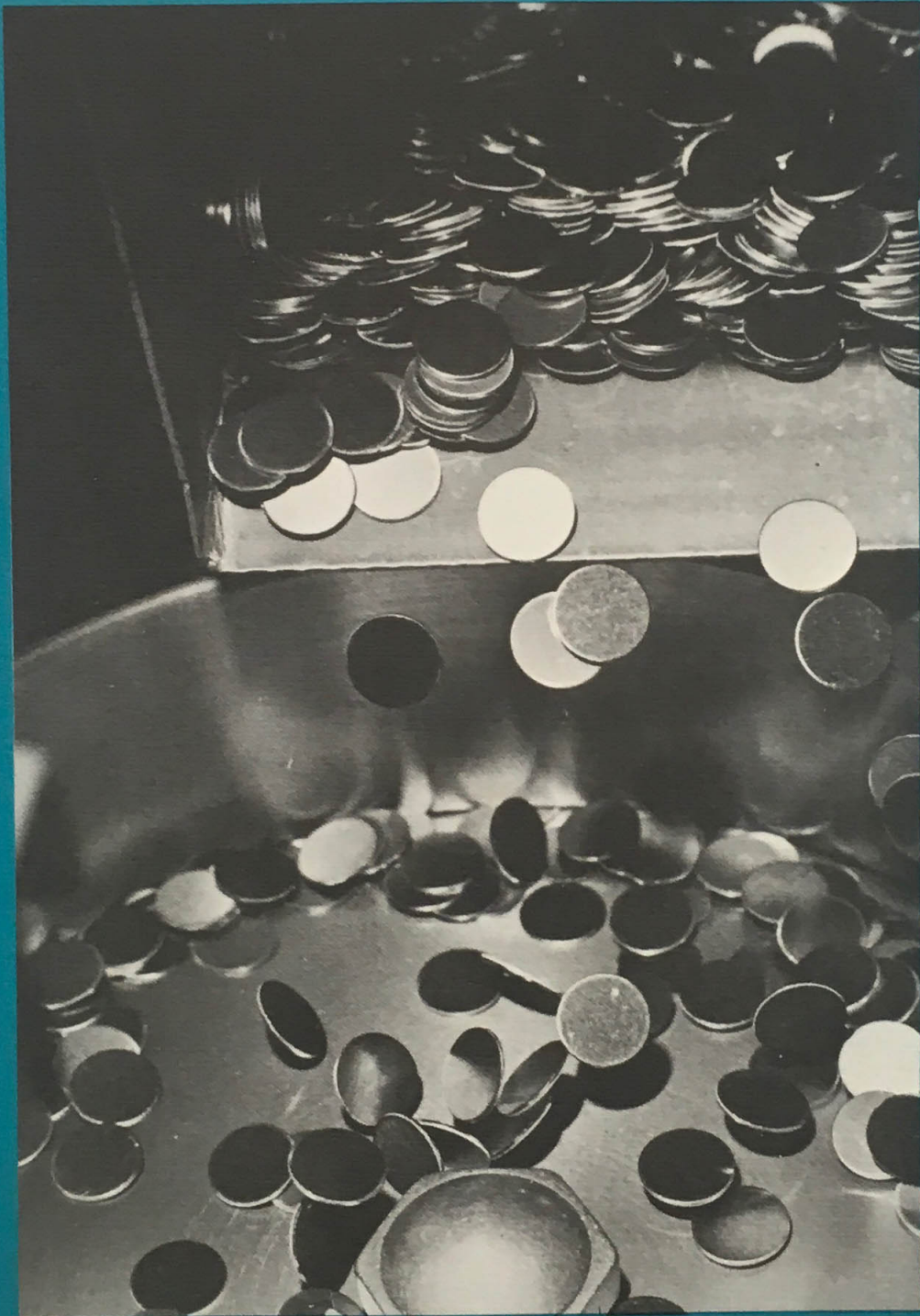
ACRES CONSULTING SERVICES LIMITED

Metals, Mining and Heavy Industrial Group
5259 Dorchester Road
Niagara Falls, Canada
L2E 6N8

Telephone 416-354-3831

Telex 021-5107

TWX 610-376-0680



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Work Paper File



OFFICE OF
SUPERINTENDENT

THE DEPARTMENT OF THE TREASURY

UNITED STATES MINT

DENVER, COLO. 80204

January 17, 1974

Mr. Don Johnson
HUD
Federal Building, Room 14048
18th & Stout Streets
Denver, Colorado

Dear Mr. Johnson:

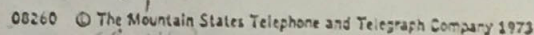
Forwarded is the data we discussed this date. As of this date we do not have an exact figure as to the number of employees of the new mint. We cannot determine this exactly until we proceed further with design, particularly with respect to the degree of automation of materials handling and coin making machinery. Our estimate at this time is a total of 800 employees. Also, as I mentioned to you on the telephone, I would expect that our average wage board grade would increase slightly in the new mint because of the increased complexity and size of the machinery, more sophistication, pollution measurement and control systems, etc.

Sincerely,

FRANK W. RHEA
Facilities Project Manager

Enclosures 2:
Greater Metro Denver Map
Salary & Wage Schedule

For Additional
ZIP Code
Information See The
Yellow Pages for
Post Office Listed Under
Government Offices-US



UNITED STATES MINT
DENVER, COLORADO

~~1/15/74~~

CLASSIFICATION OF GENERAL
SCHEDULE AND WAGE BOARD EMPLOYEES

December 31, 1973

Annual Salaries	No. of Employees		
	GS	Wage Board	Total
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 - \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

$$\begin{aligned}
 \text{Average Wage Board} &= \$10,234 \times 354 = 3,622,836 \\
 \text{Average GS} &= 12,841 \times 107 = 1,373,987 \\
 &= 4,996,823
 \end{aligned}$$

$$\text{Average Salary} = \$10,839$$

Department
of the Treasury

to, Mr. MacDonald

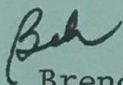
Office of the
Secretary

room, 1010WB date, 1/7/75

Office of Administrative
Programs

Attention: Mr. Frank Ray

For your information.



Brenda E. Hemphill

Real Property
Management

room 1064

ext. 2781



DI SILVESTRE, ANTHONY V
CFC OF MANAGEMENT & ORG
US TREASURY DEPT
RM 4406
WASHINGTON

DC 20220

*Jim
File
Environmental*



Environmental News

NEWS BRIEFS

FOR RELEASE TUESDAY, DECEMBER 17, 1974

EPA AMENDS PROCEDURES FOR VISUAL MONITORING OF AIR EMISSIONS

Acly (202) 755-0344

The Environmental Protection Agency has recently amended certain provisions of its regulations governing the measurement of the opacity, or visibility, of emissions from new stationary sources of air pollution.

The amendments were made to insure a high degree of uniformity and accuracy in the procedures and criteria used by EPA in the visual monitoring of air emissions. The new regulations clarify requirements for the training and certification of personnel conducting visual tests to assess a plant's compliance with EPA's opacity standards. They also define in detail the conditions under which such tests may be conducted.

EPA reviewed its regulations concerning the opacity of air emissions following legal action brought by the Portland Cement Association. The resulting amendments, which are part of EPA's effort under the Clean Air Act to regulate industrial emissions, were published in the Federal Register on November 12, 1974.

EPA SETS UP NOISE MONITORING SYSTEM

Sibbison (202) 755-0344

The Office of Noise Abatement and Control (ONAC), in the Office of Air and Waste Management of the Environmental Pro-

(more)

Return this sheet if you do NOT wish to receive this material ☐, or if change of address is needed ☐ (indicate change, including zip code).

tection Agency has introduced a new, highly versatile noise monitoring system. The system will be used in pilot community noise monitoring projects in Atlanta, New York City, Texas and Boulder, Colorado.

The respective EPA regional offices will use the new system to monitor noise in support of various ONAC regulatory activities.

The new monitoring system, designed by the U.S. Army Corps of Engineers Construction Engineering Research Laboratory, cost approximately \$72,000. Some of the significant features of the new system are:

Dynamic L printout, with hourly or any other desired time period L values and statistical distribution of noise levels. Wind selection switch that allows separation of data occurring below or above a predetermined wind speed. Variable sample rates of 1, 2, 5 or 10 samples per second and samples at integral numbers of samples per second. Integration times are also variable.

Ability to use system to reduce data in a laboratory. This is due to the unit's unique software package and the heart of the system, which is a Wang 600-14 calculator. Turns on and off automatically, also tracks operating time and operates on a pre-programmed schedule.

#

REAL PROPERTY
MANAGEMENT
ADMINISTRATIVE
PROGRAMS
DEC 24 3 41 PM '74
DEPARTMENT OF THE
TREASURY



A Program for Public Transit Service

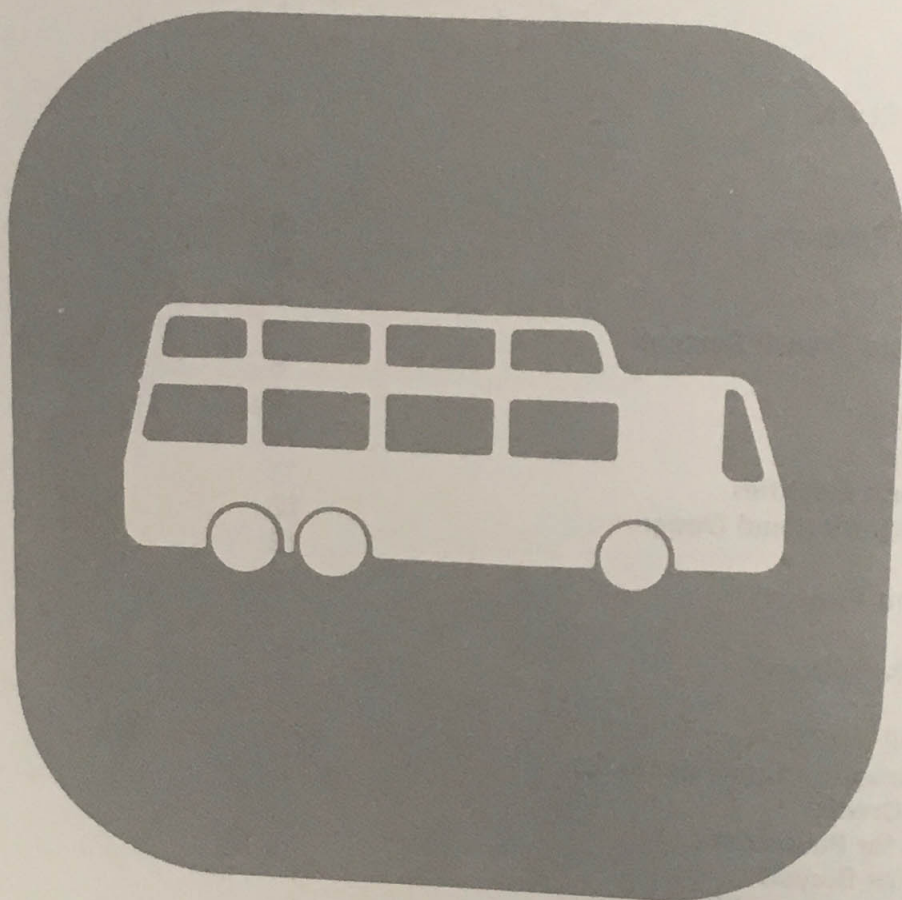
for Colorado's
Regional Transportation District



Balanced Transportation

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Regional Bus

Introduction

On September 7, 1973, voters within the Regional Transportation District approved bonds to finance the local share of the development and construction of a comprehensive, public transportation system. The system is being designed to serve six counties at an estimated total cost of \$1.56 billion.

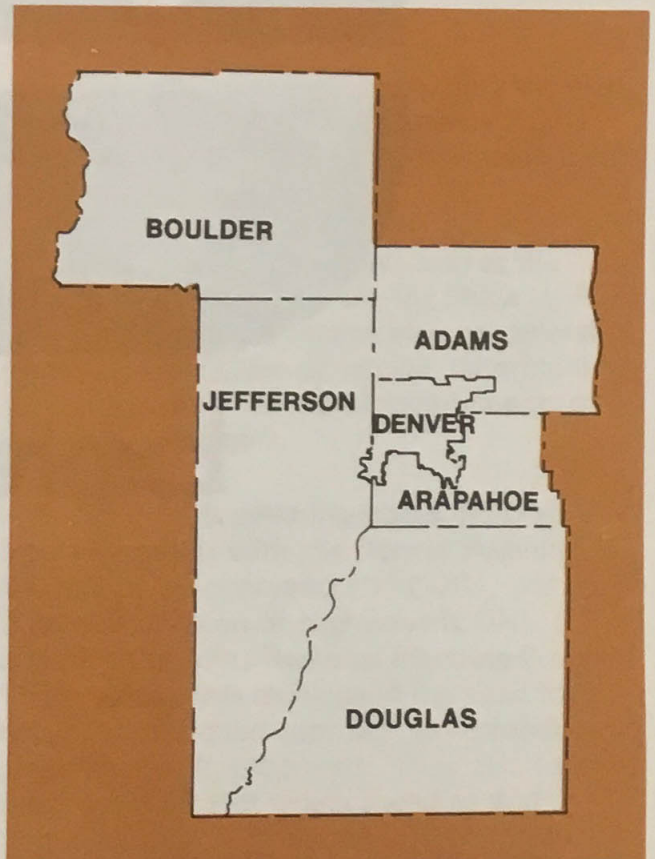
The plan for improved transportation services was the product of three years of planning by the Regional Transportation District (RTD), which was created by the Colorado General Assembly in 1969. RTD conducted extensive research and study to fulfill the first phase of the responsibility it was given by the Legislature to design, construct and submit to the voters a regional, public transportation plan.

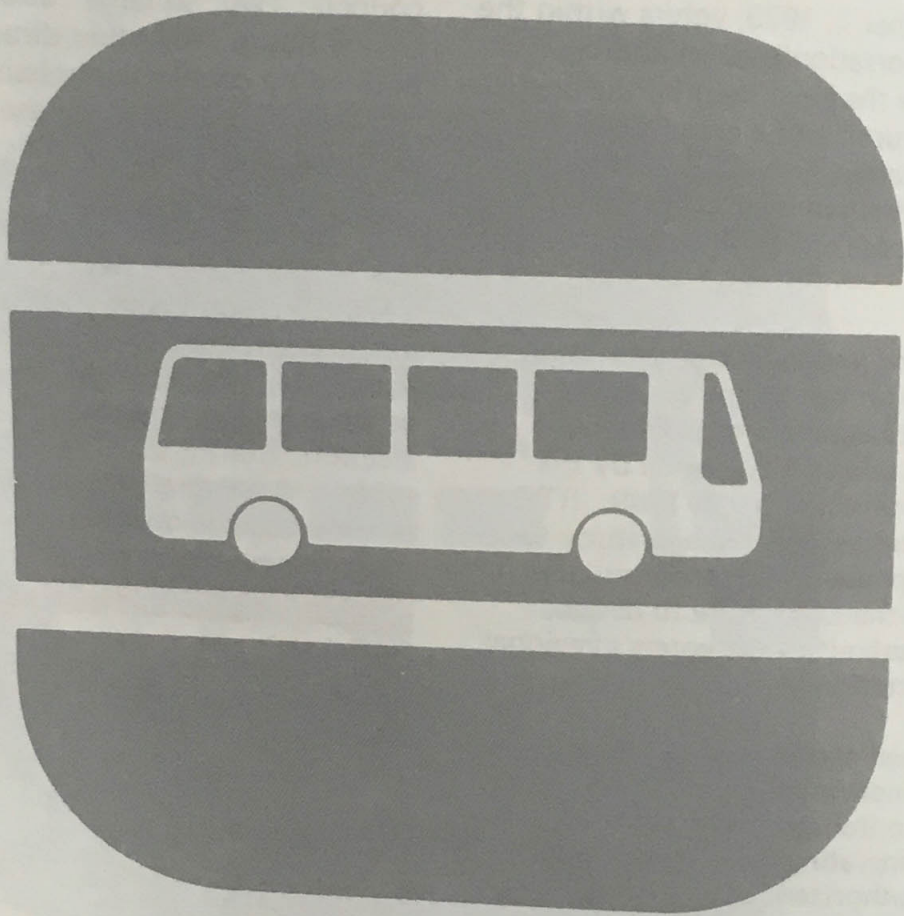
With citizen approval of the general plan and the financing program, RTD changed from a transportation planning agency to an operating transit authority. RTD is now authorized to build and operate the system it proposed, providing a fully-integrated transit system to residents of Boulder, Denver, Douglas and Jefferson Counties and the western portions of Adams and Arapahoe Counties. The system is an integral part of a total, balanced transportation plan which focuses on all modes of public and private transportation.

The RTD Board of Directors consists of 21 directors who are directly responsible to local government. Directors representing the City and County of Denver are appointed by the mayor with concurrence of the city

council. Two "at large" directors are elected by the Board. All other directors are appointed by county commissioners upon approval of a majority of the municipalities within each county.

The RTD staff has gradually increased in size since offices were first opened in 1970. Transportation planners and engineers, a public information staff and administrative personnel joined RTD at various points during the three-year period which led to the election. Staff growth will be even more evident in the next few years as transit services become operational.





Express Bus

Creating The Plan

In 1970 RTD sought a consultant team which could carry out planning under the direction of a small, experienced staff. RTD reviewed proposals from 13 potential consultants and in February 1971, selected the Joint Venture team of Development Research Associates (DRA) of Los Angeles, and Wallace, McHarg, Roberts and Todd (WMRT) of Philadelphia.

The Joint Venture recommended a different approach to transportation planning that promised an innovative transportation system. The intent was to plan a system which would be a positive influence on the region and still meet the mobility requirements of its residents. Each member of the team brought special talents to the task. DRA is noted for urban and transportation planning related to socio-economic assessments. WMRT is a leading firm in ecological and environmental analysis, urban planning and design. Other special talents were added to the team by the Joint Venture as necessary, such as Kaiser Engineers of Oakland, California, for engineering analysis.

Three years of planning were conducted prior to adoption of the regional transportation plan. During Phase I of this period, RTD and consultants made extensive studies of the region's ecological and social composition. They studied the land and tested soils to determine which areas were most stable to facilitate construction of transit guideways and stations.

They identified locations where natural resources such as water supplies, scenic areas,



and farm and pasture lands needed to be preserved and protected.

They also identified the heavily traveled routes where air pollution is greatest. And they interviewed residents to determine their travel habits and needs.

These studies were then used as the basis for system design. During Phase II, RTD and its consultants concentrated on general routes, specific types of service, tailoring the system to satisfy the travel requirements of its future passengers.

Early in its planning stages, RTD entered into agreements with the Denver Regional Council of Governments (DRCOG), and the Colorado Division of Highways (CDH) to establish the Joint Regional Planning Program. These agreements recognized the need for a totally coordinated approach to regional planning and development. They also fulfilled the RTD Act which specifies that "the plan shall be prepared in such a manner as to coordinate the proposed mass trans-

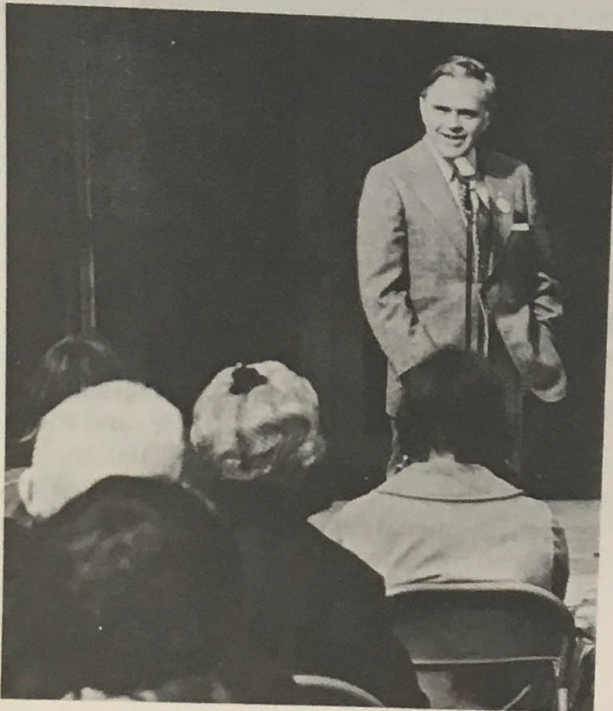
portation system with other aspects of transportation in the District, including state and county highways and arterial streets."

The work of the RTD consultant team was coordinated with and incorporated into the Joint Regional Planning Program. All agencies participated in an extensive survey of the travel patterns of District residents, conducted in 1971. Each agency had a major responsibility -- DRCOG for developing a land use plan for the region, CDH for preparing a highway plan, and RTD for developing a public transportation plan. These plans are projected to the year 2000.

One of the most important aspects of the planning process was and will continue to be citizen involvement. RTD representatives were organized into teams for each county to meet and discuss the information gathered under Phase I with local planning departments, commissions and elected

officials. RTD informed residents on the transportation concept through newsletters, news media and displays. Citizen Advisory Committees (CAC's) were formed in each county to review and participate in the planning process while it was in progress. CAC members attended RTD Board meetings to comment on the plan. They organized public forums at which the transportation concept was explained and comment was encouraged. Information from each of these meetings was summarized and distributed to Board members, staff and consultants.

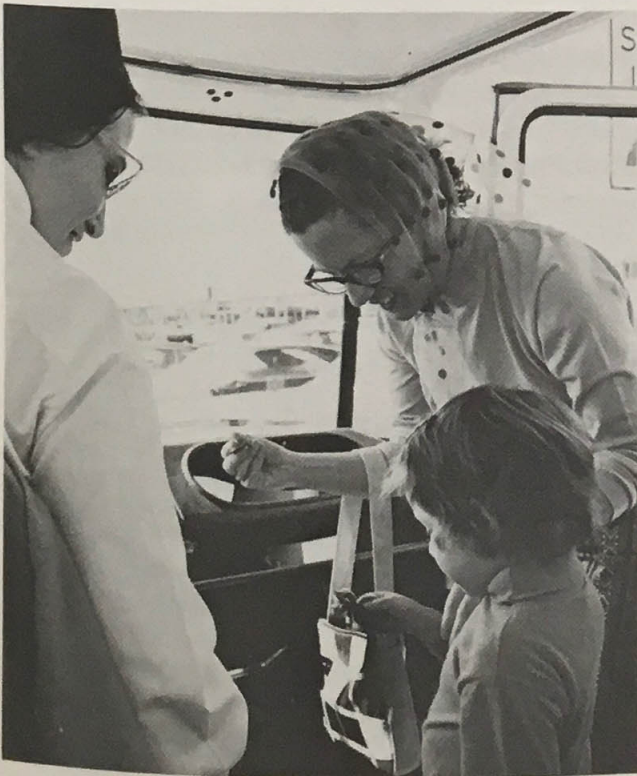
A plan for the system was tentatively adopted by the RTD Board in February of 1973. The District then took the plan and a proposed method of financing it to area citizens through a series of public forums and a formal public hearing held in six locations. At the hearing, changes were suggested and RTD modified its plan. A final plan for regional public transportation was adopted by the RTD Board on July 31, 1973.



The RTD System

The RTD plan calls for approximately 100 miles of Personal Rapid Transit (PRT) to be constructed over a 10-year period along the District's most heavily traveled routes. In addition to rapid transit, extensive bus service will provide convenient travel within communities and between them. Buses will make regular trips to transit stations for easy bus-PRT connections, and other segments of the District will enjoy the most advanced bus service possible.

Segments of the PRT network will be constructed, tested, and opened at various scheduled dates between now and 1983. However, RTD plans to improve and increase bus service as soon as possible.



EARLY ACTION PROGRAM

Under the RTD plan, bus service is to be vastly improved and extended throughout the region. As a first step in carrying out this program, RTD plans to acquire six existing bus companies.

Bus systems which the District scheduled negotiations to acquire include: Denver Metro Transit, Englewood-Littleton-Fort Logan Bus Line, the Longmont Mini, Public Service Company-Boulder Division, Northglenn Suburban Bus Company and the Evergreen Transit Company.

RTD, working with an appraiser, scheduled appraisals of the companies, evaluated their assets, real estate and pension liability. The program called for acquisition by April, 1974.

RTD launched a joint survey with Denver Metro Transit (DMT) of existing bus routes and proposed bus routes to develop ridership patterns. This type of continuing study provides information on specific routes where service should be improved and the extent of the needed improvements.

Immediately following the election, requests for funds for the Early Action Program were submitted to the Urban Mass Transportation Administration (UMTA). The funds will be used for purchase of the bus companies and 115 new buses, and for construction of bus shelters and additional bus storage facilities.

RTD will purchase the most modern buses available. Private companies have been working with the federal government to develop non-polluting, quiet buses with a smooth, comfortable ride.

RTD, together with Denver Metro Transit, is conducting a field survey of potential locations where bus shelters can be built. Along the more heavily traveled bus routes, it is proposed that shelters will be lighted, heated, and may be equipped with telephones and other services. Start of construction for shelters and storage areas is set for mid-1974.

With the new buses in operation early in 1975, bus service throughout the district will increase by 61%.

BUS SERVICE

RTD plans three kinds of bus service to suit specific travel needs.

Local buses will serve neighborhoods and communities, connecting with express buses, and later with rapid transit. Some of these buses may be smaller, designed for rela-

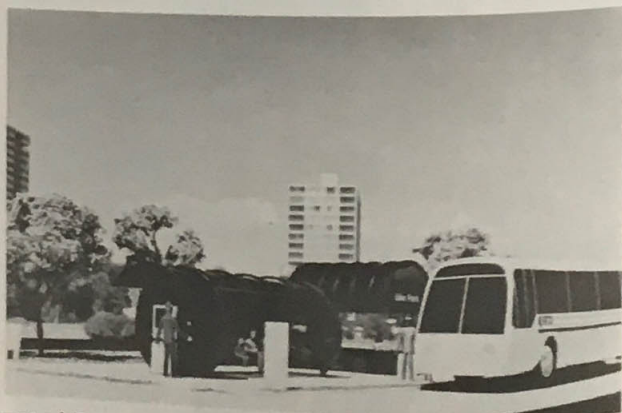
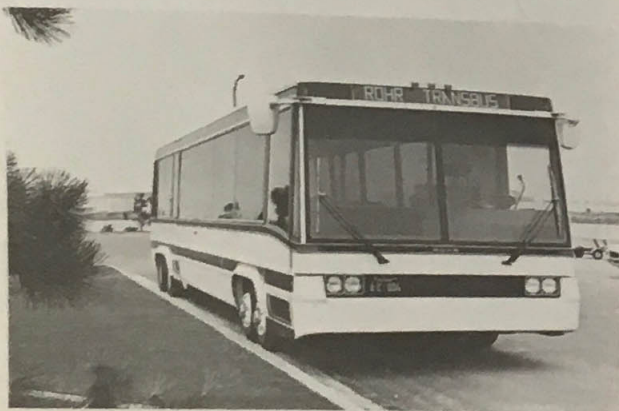
tively short trips. In the urban areas of the region, it is RTD's objective to provide local bus service within a four-block walking distance of most residents.

Express buses will offer more direct service between locations with fewer stops and shorter trip times. They will serve most frequently traveled routes such as those between residential areas and major employment centers.

Regional buses will provide fast travel between cities such as Boulder, Denver, Longmont and Castle Rock. These buses will carry people over long distances at high speeds.

BUS SHELTERS

RTD plans initially to construct up to one hundred bus shelters at various bus stop locations along the network. Bus shelter designs permit the basic unit to be expanded for larger shelters where patronage requires additional room. Two, four and eight-seat modules which can be used individually or in combination are under consideration.



New bus technologies are currently being tested under a Department of Transportation (DOT) program called Transbus. Pictured at left is a Transbus model designed by Rohr Industries of Chula Vista, California. Two other models were designed by AM General Corporation of Wayne, Michigan and by General Motors-Truck and Coach Division of Pontiac, Michigan. Transbus models are not yet available for purchase. However, buses such as these eventually may be used by RTD to provide service to District residents.

Even the smallest shelters will provide seating and protection from the weather. Larger shelters may include additional features such as lighting, bike racks, radiant heating systems, telephones, vending machines, drinking fountains and police and fire call boxes. Larger shelters will also serve as coordination points for all levels of bus service -- local, express and regional.

PERSONAL RAPID TRANSIT SYSTEM

A rapid transit network will be constructed over approximately 100 miles of the most heavily traveled routes in the metro Denver area. Personal Rapid Transit (PRT) is a fast, comfortable means of travel which provides a personal level of transit service most comparable to an automobile. Elements of the PRT system to be constructed within the District include PRT vehicles, guideways and stations.

PRT features the most current transportation technology available. Automatically controlled vehicles will carry passengers over elevated guideways at 30 to 40 miles per hour with few stops or transfers. The vehicles will be small, seating about 12 passengers, and can accommodate more individual travel needs. They are electrically powered with no pollution emissions.

At stations, passengers will purchase magnetically-encoded tickets for variable amounts. When a passenger is ready to board a vehicle, he will insert the ticket in a fare collection gate. The gate will open, the ticket will be read for validity and will be returned to the passenger.

The passenger will then press a button to indicate his destination and board a vehicle bound for that destination.

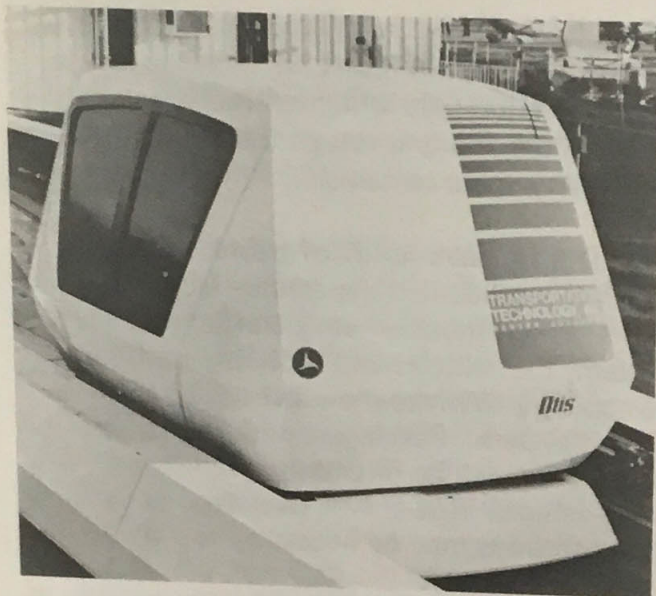
Often he will travel non-stop. Upon leaving the system, he will insert his ticket into a fare collection gate which will subtract the price of the trip and return the ticket to him if any value remains.

During peak hours of travel, vehicles will make scheduled departures from stations. When there is heavy traffic on the system, the vehicles will probably be filled to capacity to make the most use of the transit system. Passengers with the same destination will be directed toward the same vehicle. But one or two stops at other stations may be necessary to fill vehicles to capacity.

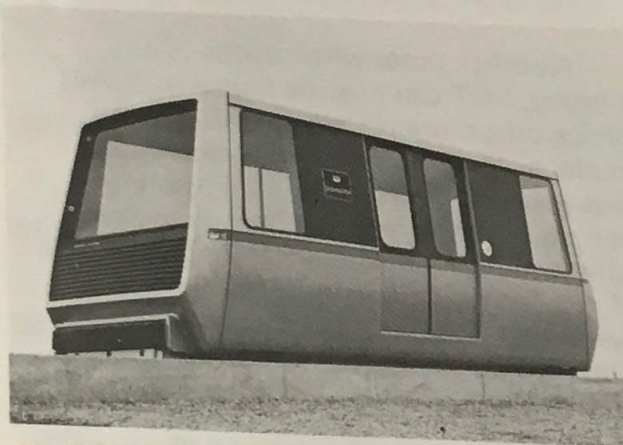
At other times when traffic is not as heavy, PRT can provide non-stop transit service on a more personal level. For example, a group of friends may board a vehicle and travel directly to their destination unaccompanied by other passengers. Although PRT vehicles are small and capable of responding to individual travel needs, the system can handle large traffic volumes. A single PRT lane can handle an equivalent traffic volume of three highway lanes.

PRT vehicles operate much like horizontal elevators. No drivers are necessary because the system has a central control system. A central computer "learns" traffic patterns and "knows" when vehicles are needed at certain stations. Heavy traffic on any part of the system can be anticipated, programmed and accommodated, whether it is workday traffic or crowds leaving a sporting event at Mile High Stadium.

PRT vehicles may be rubber tired, air cushioned or magnetically levitated. These and other alternatives vary with manufacturers. RTD has not yet selected a specific vehicle model for the regional system.



There are many kinds of PRT vehicles. Four shown are: (Clockwise from upper right) Krauss Maffei, Proposed for Toronto, Ontario; Monocab, Rohr Corp.; Dashaveyor, Bendix Corp.; Transportation Technology Inc.

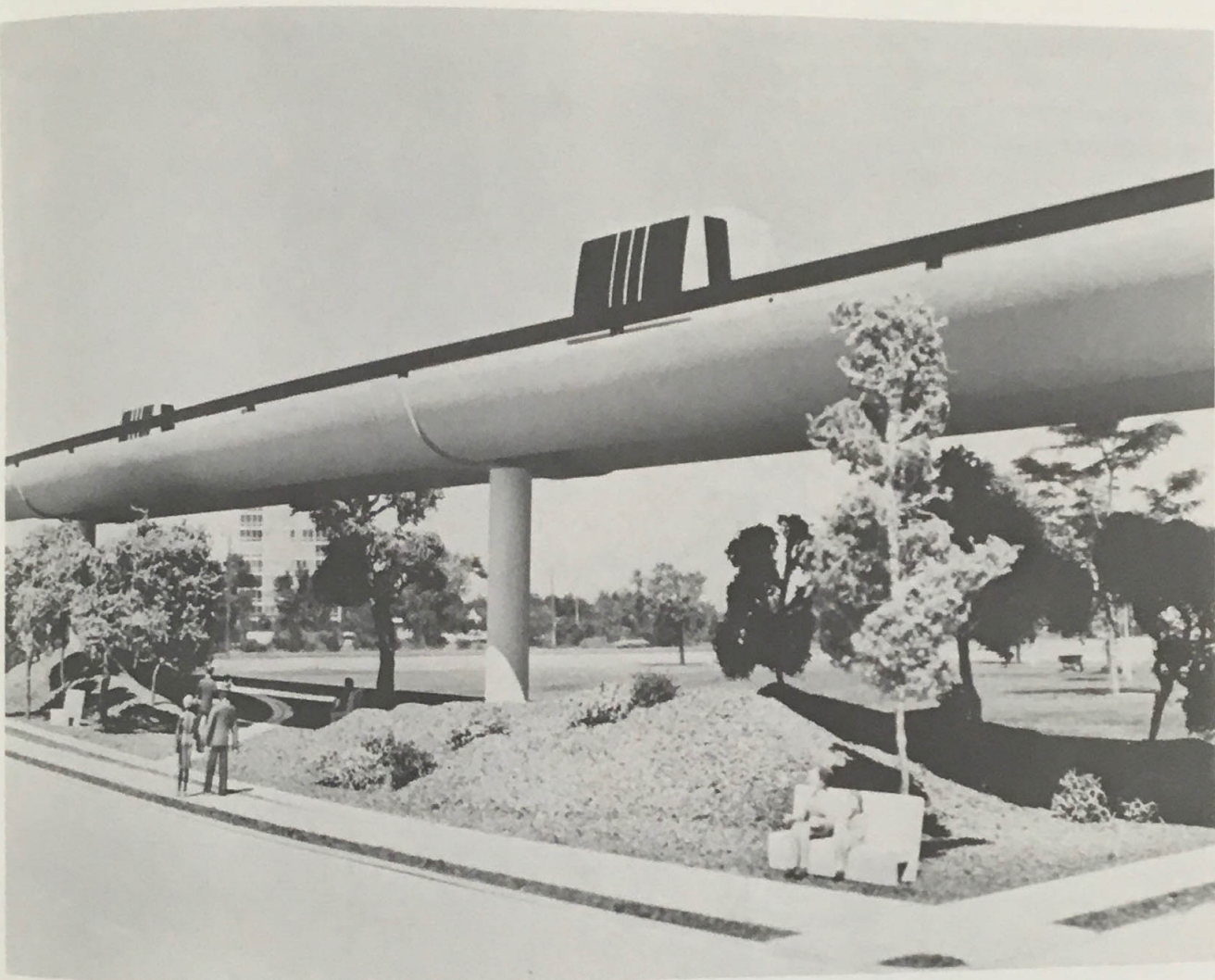


GUIDEWAYS

PRT vehicles travel safely over exclusive guideways at intervals of less than fifteen seconds and later may be programmed to less than eight seconds. Aerial or overhead guideways are planned for most of the PRT system. Aerial guideways are less expensive to construct than those underground. They do not interfere with street traffic, as they do when at ground level, and are most easily protected from vandalism. PRT vehicles may be suspended from the overhead guideway or they may travel on top of the guideway, depending on various construction designs.

Guideways are prefabricated from concrete and steel, also in a variety of designs. A two-way guideway would be 20 feet wide or less and would be supported by columns three to four feet in diameter. Columns would be spaced about 80 to 120 feet apart.

Land beneath guideways can be landscaped into linear parks featuring bikeways and walkways. Guideways can be constructed on existing public or private rights-of-way, at the sides of streets, on existing street lanes or down street medians. They also may be coordinated with other construction to pass through buildings.



PRT CORRIDORS

As part of the planning process, RTD identified major corridors or general routes where travel justifies PRT service. Alternative and preferred routes were identified, but specific routes have not been chosen.

The corridors are basically on east-west, north-south axes. A route in the area of Colfax Avenue serves the east-west corridor. Interstate 25 provides the right-of-way for the majority of the north-south and south-east corridors, with variations to the north-west along the Colorado and Southern Railroad right-of-way to Broomfield and to

the southwest along Santa Fe Drive in the railroad right-of-way to Littleton.

In Jefferson County, an additional north-south route is provided along Wadsworth Boulevard from West Hampden Avenue to Broomfield, as is also the case in east Denver along Colorado Boulevard from Colfax to I-25.

Additional east-west routes are provided along Buchtel Boulevard from Colorado Boulevard to Louisiana and Santa Fe, then along West Mississippi Avenue to Wadsworth. In addition to circulation systems within the Denver area, routes from main corridors are



provided to serve activity areas such as the Federal Center, Stapleton Airport and the projected future downtown center of Aurora.

Specific PRT alignments must be selected before actual design and engineering can begin. Alignment selection will be a main topic in meetings between RTD representatives, local officials, community planners and neighborhood residents. Neighborhood meetings and public forums will assure community involvement in the selection process of the most feasible alignment and will remain a permanent part of the RTD plan implementation process.

PRT STATIONS

All PRT stations will be located off line. In other words, PRT guideway angles off the main line to serve the station for loading and unloading vehicles and then merges with the main line at the other end of the station. Traffic can continue on the main line, with vehicles switching into the station and merging back onto the main line as necessary.

Information panels inside the station will tell passengers how to use the system and displays on the platform will give the destination of the next vehicle. A station supervisor will be available to assist passengers, oversee operations and provide an added measure of security.

Features of the stations include wide passenger platforms, escalators and elevators to facilitate movement of the elderly and handicapped, open areas underneath to accommodate large numbers of people disembarking from buses and autos, and pedestrian bridges across streets where needed.

Harmonious colors and pleasing views also are part of the station design considerations. Subway stations will be opened to the sky as much as possible through skylights or open entirely at a mezzanine level.

For the convenience of passengers on the PRT system, telephones, police and fire call boxes, drinking fountains, community bulletin boards, bike racks, newspaper vending machines, controlled access rest rooms and other services are designed into the station concept.

In downtown areas, stations can be incorporated within new building construction, providing easy access to offices and stores. At PRT stations, service will be coordinated with local, express and regional bus service for better overall transit service. Parking also will be provided at many station areas.

PARK-AND-RIDE FACILITIES

The automobile still will play an important part in delivering passengers to the public transportation system, and particularly to express bus, regional bus and PRT systems. Regional and most express bus service will originate at an auto intercept, sometimes called a park-and-ride facility -- a point where drivers and automobile passengers can gather to board the bus or PRT systems.

A park-and-ride facility can vary from a parking lot at a regional shopping center to a special facility built as part of the transportation system. The largest park-and-ride facilities also will be collection points for local, express and regional buses bringing passengers to the PRT system. Exclusive lanes will also be provided for cars driving up to let passengers out or to pick them up.

SYSTEM INTEGRATION AND DESIGN

All elements of the PRT and bus systems will be combined and coordinated to ensure convenient, efficient service both for passengers using only one segment of the system and for those who may transfer. Bus and transit routes and station locations as well as scheduled departure and arrival times will be coordinated to form a smoothly-functioning transportation system. Development of the system is being integrated with other modes of transportation to meet the diverse travel needs of District residents. Bikeways and walkways, buses and PRT, automobiles and park-and-ride facilities will be integrated with the system's design.

Design of all PRT stations and bus shelters including materials, finishes and general shapes will be coordinated so that RTD facilities can be readily identified throughout the District. Additional graphics will identify the type of facility through colors, symbols and explanation. As the system becomes operational, RTD will also prepare and distribute information on routes, fares and schedules.

SECURITY

All station areas including pedestrian bridges, walkways and parking lots adjacent to the station, will be well lighted and monitored by closed circuit television for security purposes. Station attendants will

be able to observe activities in all station areas. Police and fire call boxes will provide a means for quickly reporting emergencies.

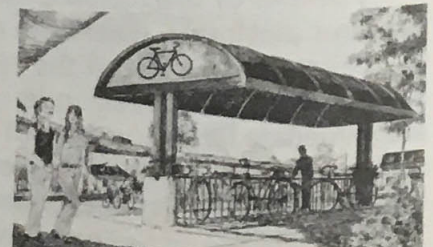
Location of vehicles, distance between them, direction, speeds and mechanical functions will be constantly monitored by computer equipment. Station attendants will be alerted to any problems which may occur within the system. All vehicles are capable of reversing direction without turning around and have provision for manual override of the automatic controls, allowing an attendant to guide a vehicle with a potential problem into the nearest station. There will be provision for two-way communication between vehicles and the control center so a passenger may report any difficulties and receive instructions.

An extensive and specific system for passenger safety and security will be developed when a specific PRT technology is chosen.

DEVELOPMENT PROJECT

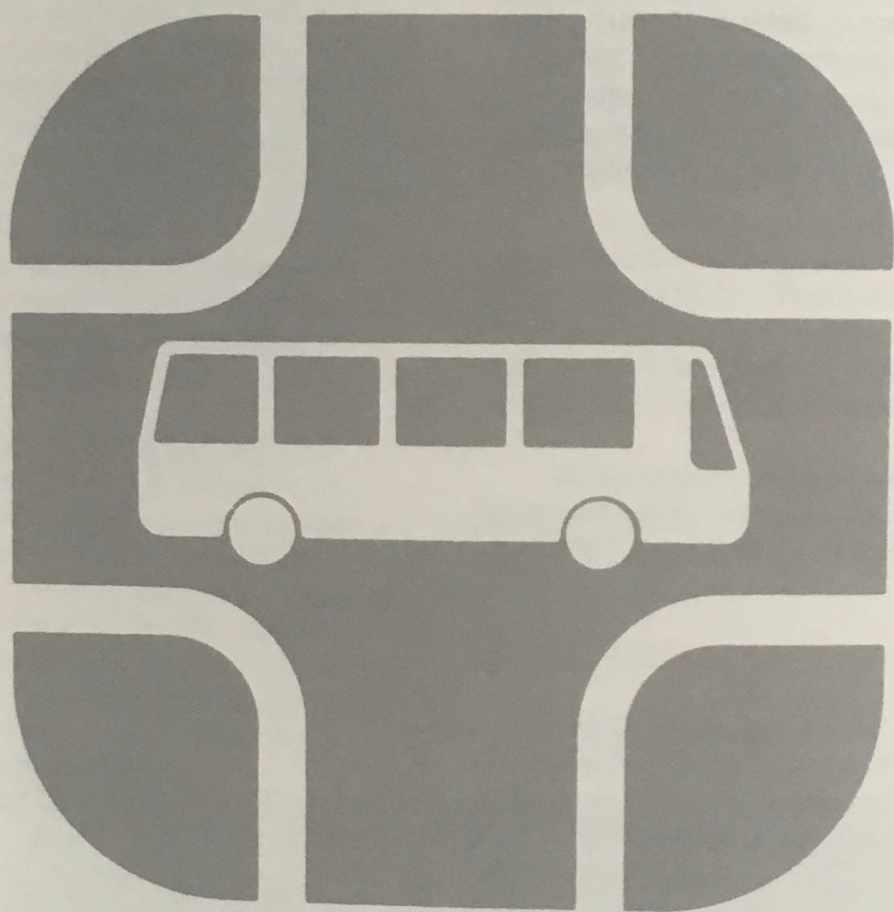
The U. S. Department of Transportation indicated increased interest in PRT technology in July of 1973 when they announced a proposed PRT Development Project for the metro Denver area.

The project, to be constructed at Broomfield in northern Jefferson County, will be a testing facility to refine, command and control technology for PRT operations. Construction costs will be entirely federally funded and may total up to \$28 million.



When the RTD system is completed, the Development Project will serve as a maintenance and testing facility for the entire PRT network. During the project's three-year construction period, RTD will be conducting specific engineering and planning surveys for the regional system to determine route alignments and their environmental and social impact. Construction of the PRT network will begin upon certification of the system as proven in testing by this Development Project.





Local Bus

Cost and Financing

Construction of the entire regional transportation system is estimated to cost \$1.56 billion over a 10-year period due to estimated inflation. If constructed today the system would cost \$1,059,750. Included in the inflated costs are:

- construction costs of all physical elements, such as guideways and stations.
- acquisition of existing bus systems, purchase of new buses and bus-related facilities.
- right-of-way acquisition.
- landscaping.
- system integration, engineering, procurement and construction management.
- 16% contingency fund.
- 47% inflationary factor figured over the 10-year construction period.

The federal government will provide at least two-thirds and possibly up to 80 percent of the system's total cost. According to the plan approved by the voters, no more than one-third of the cost, or \$520 million, will be raised locally.

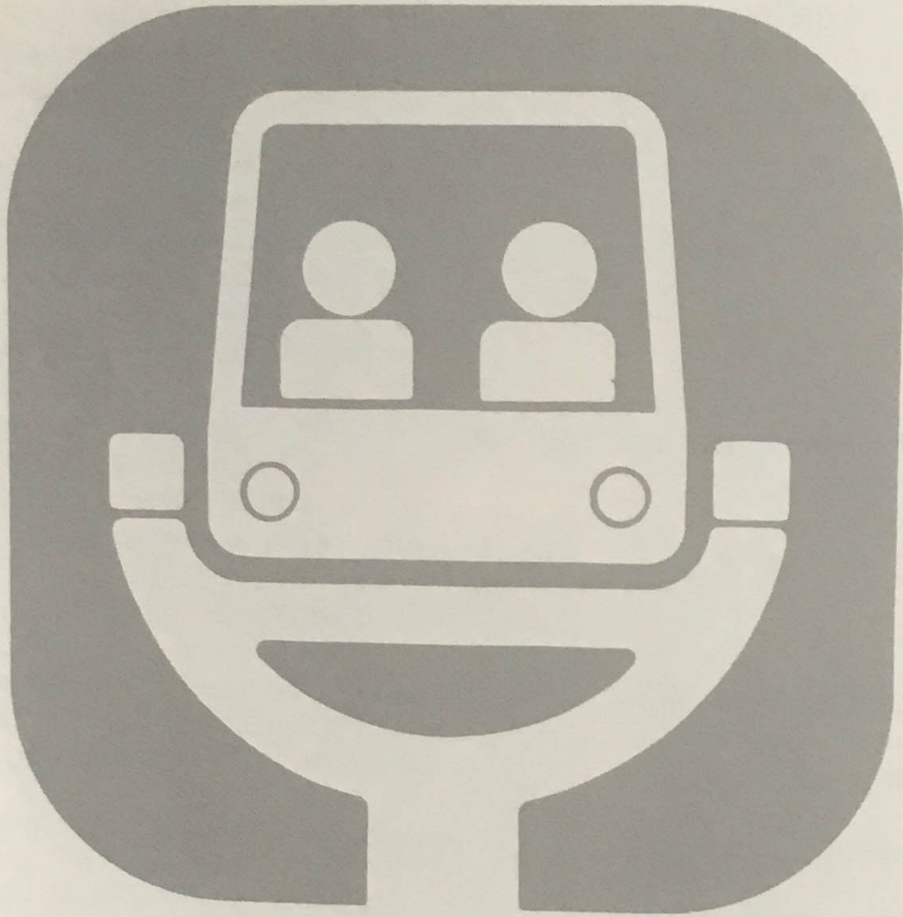
On September 7, District voters authorized RTD to issue \$425 million in bonds to be backed by a half-cent sales tax levied within the District. The sales tax will provide enough

pay-as-you-go cash revenue along with the bonds over the ten-year construction period to raise the \$520 million local share.

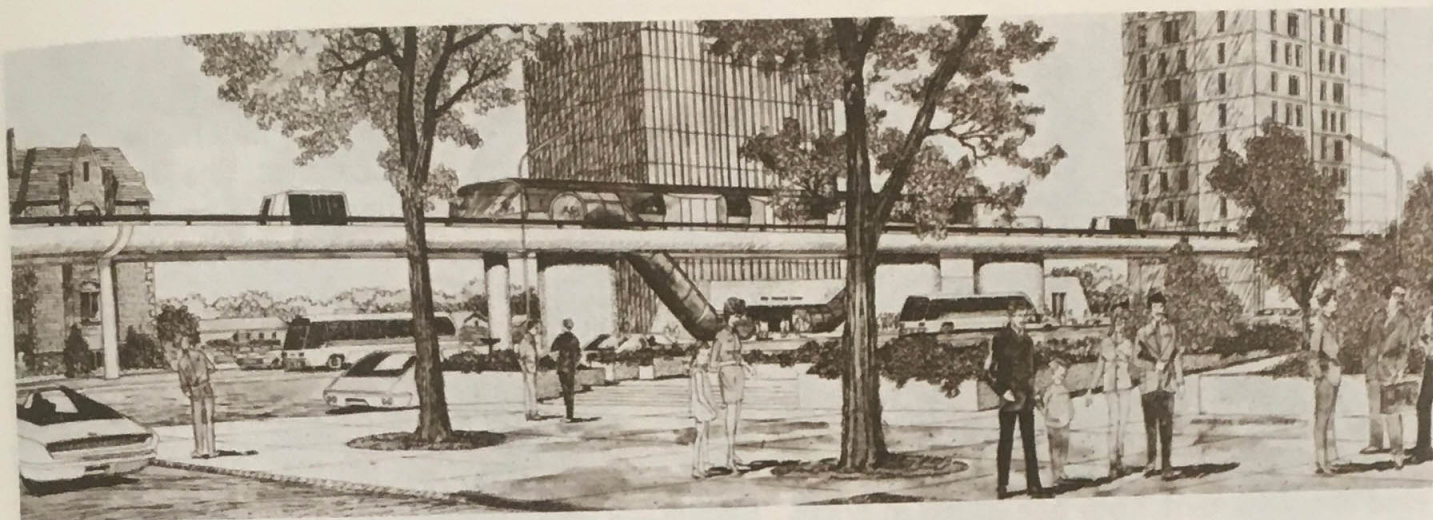
To cover administrative costs, RTD is authorized to levy the property tax up to one-half mill. However, the current mill levy is .32 and RTD has never levied the full half mill. Because the fare structure for RTD's system has not been established, only tentative estimates of operating surplus or deficit have been developed. To defray operating deficits, RTD is authorized to levy a 2-mill property tax. However, for 1974 RTD has elected not to enact any portion of this levy.

While most public transportation systems do not operate at a profit, RTD expects the system to begin paying its own way in 1983, upon completion of the PRT network, and to eventually operate at a profit.

Overall operating costs for buses are higher than for PRT. PRT vehicles will operate only in response to specific needs of a varied number of passengers within a very close seating margin. Thus, until the PRT system becomes completely operational in 1983, RTD expects buses to operate at a deficit. After the PRT system is completed, its profits are expected to more than cover the bus operational deficit.



(PRT) Personal Rapid Transit



Planning the Future

Looking ahead to the construction and operation of a major regional public transit system, the RTD Board adopted policies concerning several areas of major importance to the implementation of the plan.

PRT CONSTRUCTION IMPLEMENTATION

The Board recognizes that construction of the Personal Rapid Transit (PRT) element of the system must be sufficiently flexible to respond to current development programs and improvements in the technology of personal rapid transit.

In its policy statement, the District Board said it will not initiate construction of the PRT element of the system until a commitment for federal funding is obtained for such construction. If such a commitment is not forthcoming, the District will develop and present a modified plan to the voters, asking authorization for the financing of this modified system.

FOOD TAX CREDIT

The Board reaffirmed its desire to have a food tax credit administered in conjunction with the half-cent sales tax method of financing the local share of the system's capital cost. Such a provision was included in the financing method tentatively adopted by the Board in early 1973. The General Assembly's action on the sales tax legislation did not provide for any means to administer a food tax credit. The District could legally administer a food tax credit but, because of administrative costs involved, RTD would prefer the Colorado General Assembly provide a method to administer this credit, and will seek legislative action for further consideration of a food tax credit within the District.

PROVISION FOR PEDESTRIANS

The legislative act which created the Regional Transportation District in 1969 requires that "the plan shall be prepared in such a manner as to coordinate the

proposed mass transportation system with other aspects of transportation in the District..."

Accordingly, the Board of Directors has stated its belief that linear parks oriented to the pedestrian can be incorporated into the landscaping around portions of the rapid transit guideway, which will be mostly aerial. At rapid transit stations, passenger flow patterns will be closely examined to ensure the greatest safety and ease of movement from one mode of transportation to another by the pedestrian.

Pedestrians also will directly benefit from the provision of bus stop shelters proposed by the District for many bus stops. All shelters will provide protection from the weather, and some major bus stops will have shelters with additional amenities such as newspaper vending machines and telephones.

PROVISION FOR BICYCLES

Bicycle travel is a significant mode of travel with which the public transit system must be coordinated in accordance with the District's enabling legislation.

The District has and will continue to incorporate the needs of the bicyclist in its planning and implementation of a transportation system, following these guidelines:

Where feasible, the District will incorporate bicycle paths into linear parks beneath PRT guideways.

At PRT stations, the District will ensure the greatest possible accessibility from existing or proposed bikeways to the stations, and coordinate safe bikeway connections from those bikeways, including signs or other

physical facilities as necessary. In some instances, such as major regional bus stops, this same coordination will be provided between bikeways and bus facilities. The District will continue its coordination of planning with local bikeway planners to accomplish the highest possible level of compatibility between bikeways and public transportation facilities.

Safety considerations for bicyclists who park their bicycles at PRT stations will be given equal importance with provisions for those who leave automobiles at stations. Safe, secure bike parks will be provided, including bike racks which enable locking of both wheels and the frame, and which will be supervised by station attendants. New bicycle parking methods or devices which may be developed will be considered for incorporation.

The District cannot provide auto or bicycle parking facilities at each and every bus stop throughout the region. Selected bus stops, however, will have bike parks available, and will be designated with the assistance of local bicycle groups and bikeway planners.

The design of a PRT vehicle is still flexible, and when final design criteria are established, the possibility of providing for carrying bicycles on PRT vehicles will be considered.

"Pedal-hopper" service, enabling bicyclists to carry their bikes on board buses, will be provided as demand warrants. Initially, this service will be considered on selected express and regional routes, which will be determined with the assistance of local bicyclist groups and bikeway planners, and expanded as necessary.

As part of the total public transportation system, maps of transportation facilities will be provided. These maps will indi-



cate bike path connections to PRT stations and bus stops, "park and ride" facilities for bikes, and "pedal-hopper" routes.

COMMUNITY INPUT TO PLAN IMPLEMENTATION

The District Board recognized the valuable role played in the planning of the system by citizen involvement and input from elected officials and agencies of many kinds and at all levels. The policy statement observed that the importance of citizen and local governmental input will not end with final approval and adoption of the system, nor with a successful election authorizing construction of the system. The District pledged itself to:

- Continue to encourage general informational meetings with citizens organizations;
- Continue to fully evaluate and consider suggestions from individuals, organizations and agencies;
- Continue to review the system plan with local community officials and leaders to maintain continuity with local plans and policies;
- Hold environmental impact public hearings on the system;
- Hold public hearings on any proposed significant change in the adopted plan, and give full considera-

tion to making changes which can be accommodated within the framework of social, economic, environmental and ecological criteria which guided the development of the adopted plan; and

- Develop community impact construction standards which will serve as criteria on such matters as traffic re-routing, maintenance of access to property, control of noise and protection of natural and physical features.

PLAN IMPLEMENTATION COMMITTEES

To carry out its commitment to continued citizen involvement in all levels of planning, RTD is encouraging the organization of thirteen citizen committees charged with studying and making recommendations to the RTD Board of Directors on all phases of the Early Action Bus Program including bus routes, service and location of bus shelters.

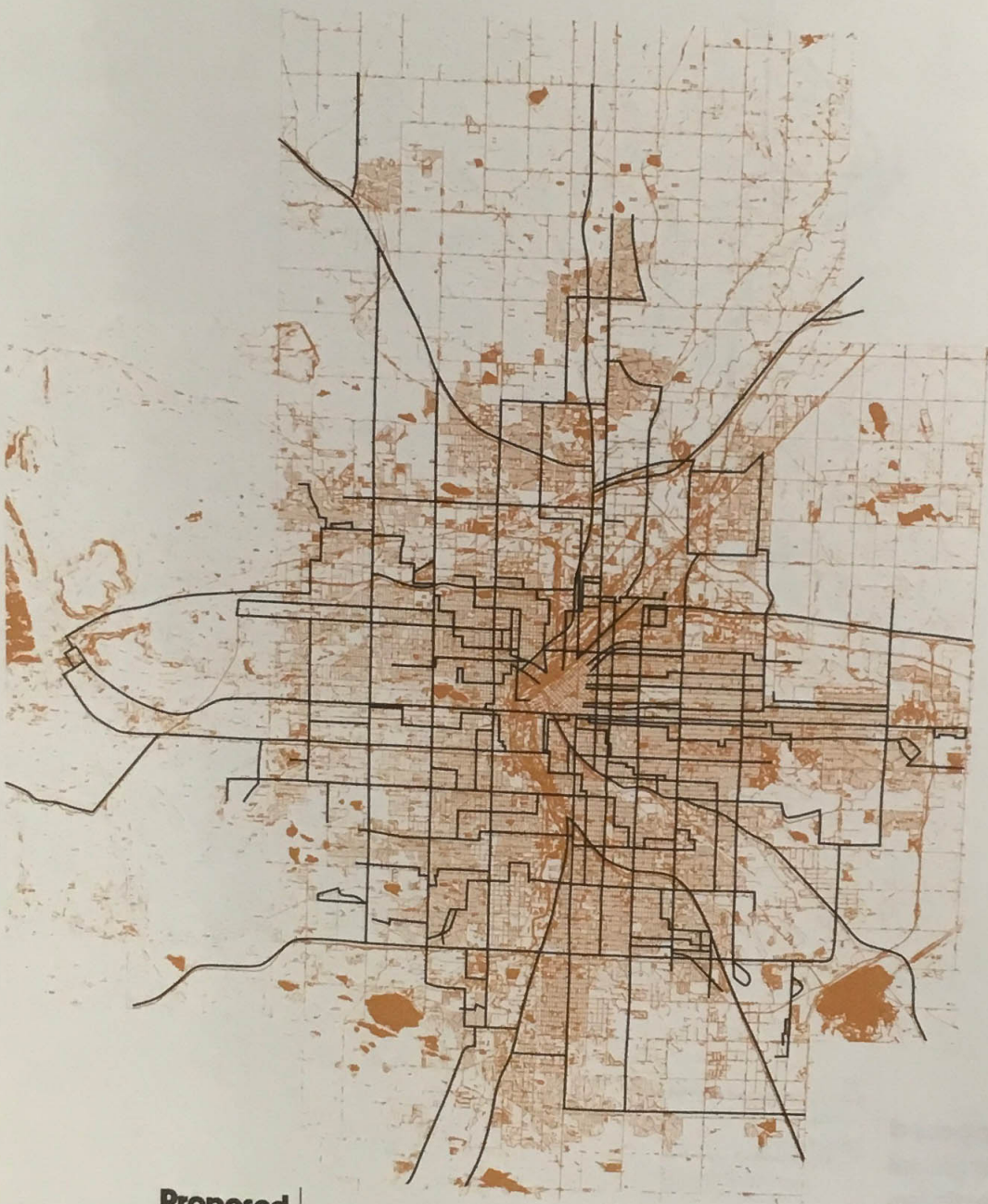
Ten of these committees in the metro Denver area will be working in areas around proposed PRT corridors. In addition to the Early Action Program, the committees will be asked to make recommendations on PRT routes and alignments and station locations.

District residents interested in working with a citizens Plan Implementation Committee are encouraged to call the Regional Transportation District Offices, 56 Steele Street, Denver, Colorado 80206; (303) 399-8140.



**Proposed
Regional
Transportation
System-1983**

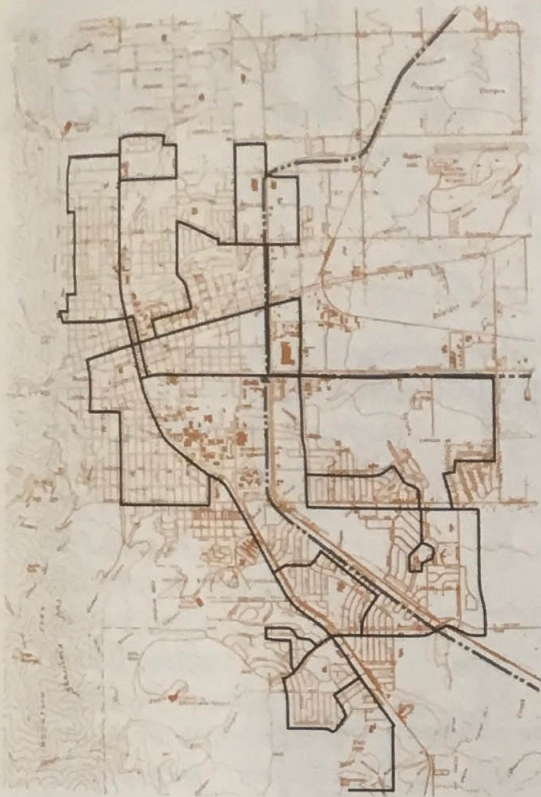
- PRT ROUTES —————
- TRANSIT CORRIDORS - - - - -
- REGIONAL BUS ROUTES - - - - -
- LOCAL & EXPRESS BUS SERVICE AREAS [Grid Pattern]
- REGIONAL BUS PARK AND RIDE FACILITIES -▲-



**Proposed
Metropolitan Denver
Early Action
Bus Service**

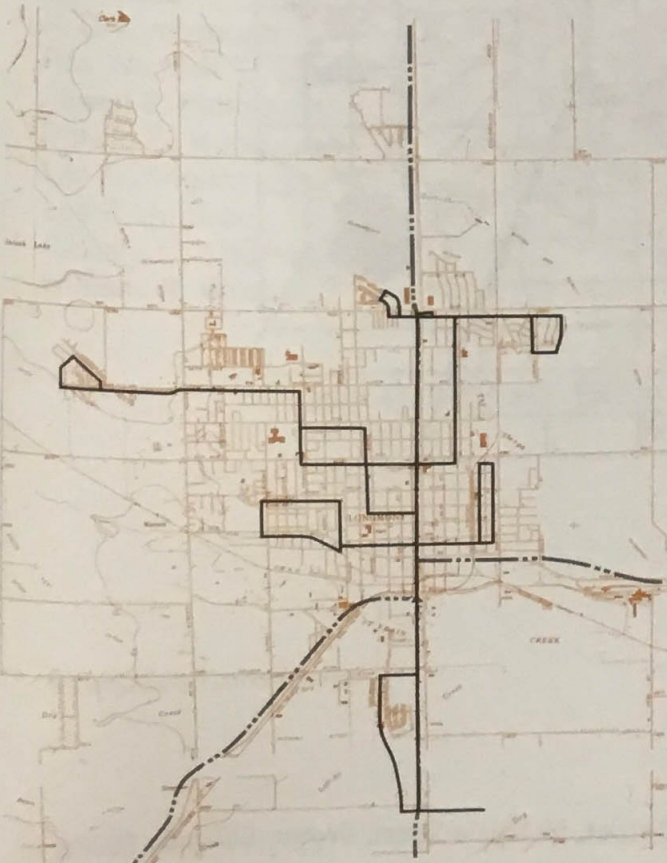
LOCAL & EXPRESS
BUS ROUTES





Proposed Boulder Early Action Bus Service

REGIONAL BUS
ROUTES — — — — —
LOCAL & EXPRESS
BUS ROUTES — — — — —
PARK AND RIDE
FACILITIES — ▲ — — —



Proposed Longmont Early Action Bus Service

REGIONAL BUS
ROUTES — — — — —
LOCAL & EXPRESS
BUS ROUTES — — — — —
PARK AND RIDE
FACILITIES — ▲ — — —



**Proposed
Metropolitan Denver
Personal Rapid Transit
(PRT) Service**

PRT
ROUTES ————
PRT STATIONS ———— ● ————
PRT STATION PARK &
RIDE FACILITIES ———— ▲ ————
LOCAL & EXPRESS BUS
ROUTES ————



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- * Richard C. Thomas
- William W. Wilson

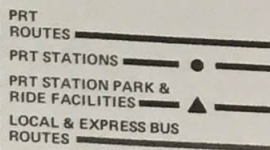
City and County of Denver
Arapahoe County
Boulder County
City and County of Denver
At Large
Arapahoe County
Boulder County
City and County of Denver
Adams County
Jefferson County
City and County of Denver
Jefferson County
City and County of Denver
Douglas County
City and County of Denver
At Large
City and County of Denver
City and County of Denver
City and County of Denver
City and County of Denver
Adams County

John D. Simpson, Executive Director

* Executive Committee



**Proposed
Metropolitan Denver
Personal Rapid Transit
(PRT) Service**

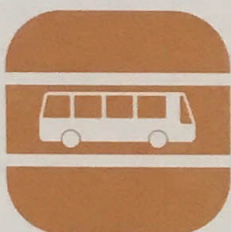




Balanced Transportation



Regional Bus



Express Bus



Local Bus



Bus Shelter



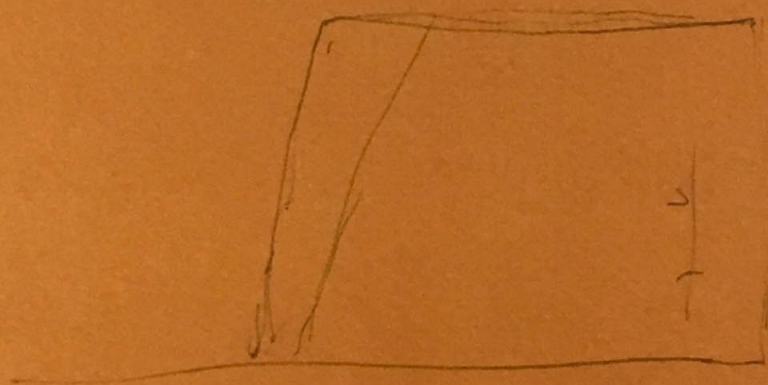
(PRT) Personal Rapid Transit



PRT Station



Park and Ride





▲ Indicate Building Entrances

Handwritten: 2 official Entrances



Handwritten: 2 official Entrances

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



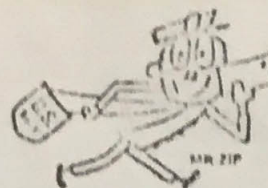
▲ Indicate Building Entrances



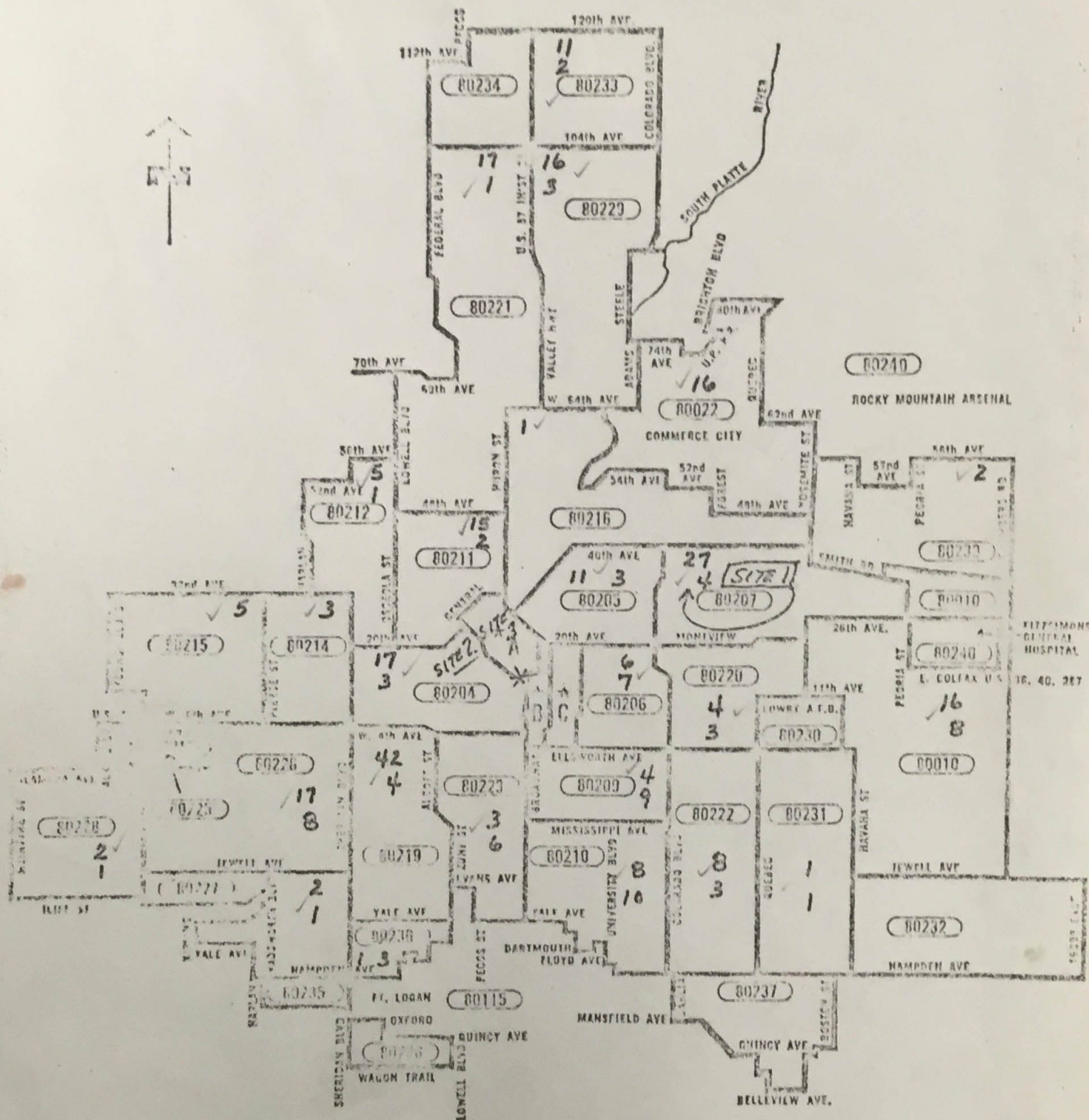
DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68

GREATER DENVER ZIP CODE



Need additional
ZIP CODE
information?
call 837-4535



— GS
— WG * PRESENT LOCATION OF MINT

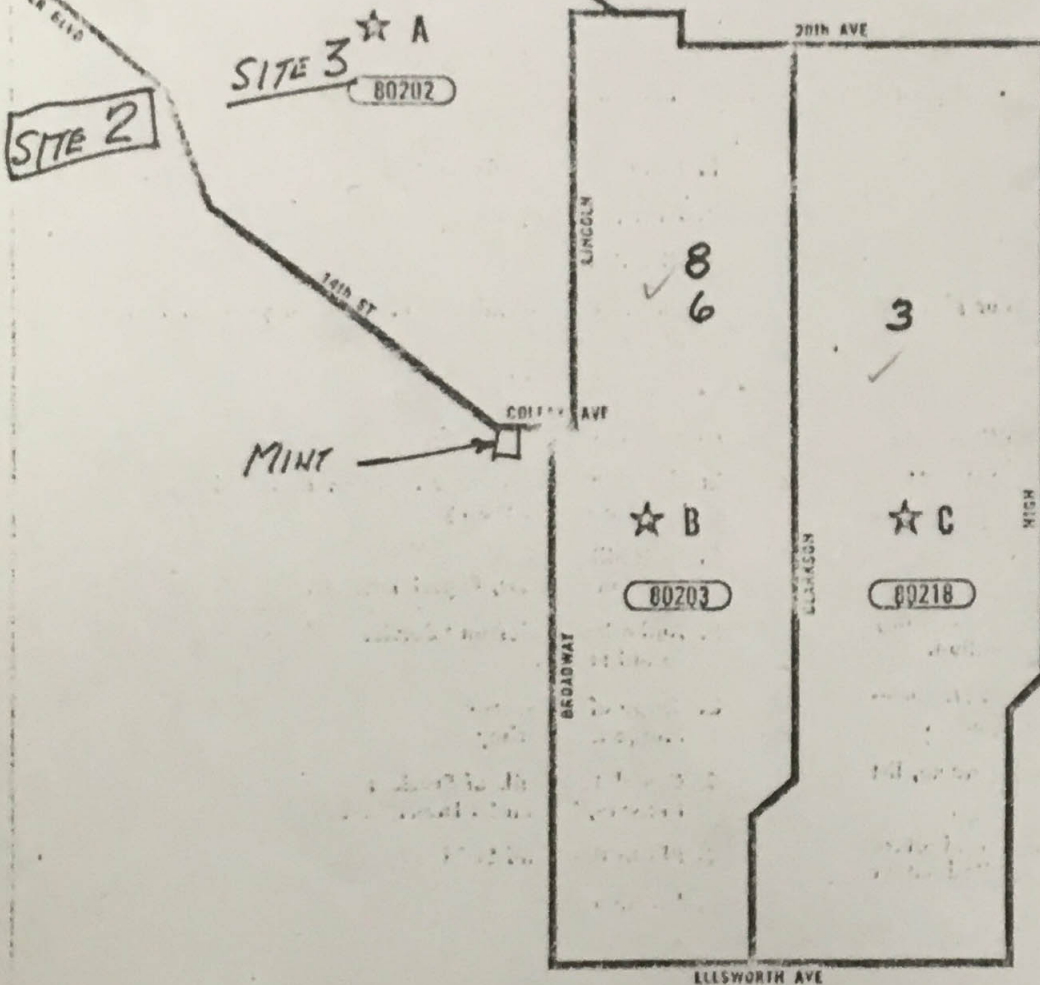
4
SHOWS NO. OF MINT EMPLOYEES
RESIDING IN EACH ZIP CODE AREA

POSTAL ZIP CODES

Other ZIP CODES for this Area

1 Pine	80470
1 Frederick	80530
1 Milliken	80543
2 Ft. Lupton	80621
1 Gilcrest	80623
1 Hudson	80642
1 Colo. Springs	80904

Adams City	80027
13/6 Arvada	80002
Aurora	80010
2 Boulder	80002
1 Brighton	80001
1 Broomfield	80070
1 Castle Rock	80104
Commerce City	80022
Dupont	80024
Eastlake	80014
15/1 Edgewater	80214
Englewood	80110
Evergreen	80430
Ft. Logan	80115
3/2 Golden	80401
1 Henderson	80640
Lakewood	80215
Lafayette	80026
3/2 Littleton	80120
Louisville	80027
1 Morrison	80465
Parker	80134
Thornton	80229
6/4 Westminster	80030
3/1 Wheat Ridge	80033



★ CLOSE-UPS OF ZONES

A 80202
B 80203
C 80218

SPECIAL ZIP CODES

Rural Route #1
Thornton Branch 80229
Rural Route #2
Wellshire Station 80222
Main Office—P.O. Boxes 80201
Term. Annex—P.O. Boxes 80217
Loretto Station 80236

Location		For 12 point wind rose (from wind direction in tens of degrees)		Month or Season		Time	
Jeffco				Dec. 68 - May 71		Hourly	
Speed Dir.	mph	1 - 7	8 - 18	> 18	Total	$\bar{x}$	Avg. Spd
N 35-36-01		582	485	60	1127	6.8	
NNE 02-03-04		960	439	27	1426	8.6	
ENE 05-06-07		344	125	1	470	2.8	
E 08-09-10		403	130	2	535	3.2	
ESE 11-12-13		375	129	8	512	3.1	
SSE 14-15-16		1314	479	39	1832	11.0	
S 17-18-19		1016	341	14	1371	8.3	
SSW 20-21-22		530	144	11	685	4.1	
WSW 23-24-25		987	232	24	1243	7.5	
W 26-27-28		1426	476	165	2067	12.4	
WNW 29-30-31		1022	962	220	2204	13.3	
NNW 32-33-34		463	539	56	1058	6.4	
VRBL		1773	79	-	1852	11.1	
CALM		227			227	1.4	
Total		11422	4560	627	16609		
%		68.8%	27.4%	3.8%		100.0	

Average Wind Speed: 6.6 mph
 Summary of 16,609 hourly wind observations made between Dec. 1968 and May 1971 at
 Jefferson County Health Dept., 260 S. Kipling, Lakewood, Colorado

WJH 5/31/82

STATE OF COLORADO



COLORADO DEPARTMENT OF HEALTH

AIR POLLUTION CONTROL DIVISION

LINDSAY M. TIPTON

AIR POLLUTION

CONTROL SPECIALIST

4210 EAST 11TH AVE.

DENVER, COLO. 80220

PHONE: 303/388-6111

Lynn Dudley, Unit Supvsr. - Traffic Investigation
-----State Dept. of Highways
24-hour weekday - both directions - PARK HILL

Colorado Blvd. So. of I-70	28,600
" " No. of I-70	18,000
I-70 - East of Colo.Blvd.	56,900
I-70 - West of Colo.Blvd.	58,700
Smith Road	4,600

FEDERAL CENTER

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Based on 1971 report - taken every 4 years.

Mr. Salizar - Asst. Director to Plng. & Sched.
Denver Metro

PARK HILL

Rte.15 - So. & No. on Colorado Blvd.

Goes south to Yale - North as far as 48th Ave.

From 5:30 A.M. to 7 P.M. - every 30 minutes
(Proposal in for every 20 min. - March '74)

Rte. 64 - 34th & Colorado - Travels east from W. Colfax
& Zenobia to 11th to Stout to 32nd & Downing to
Co.Blvd.
From 5 A.M. to 12 Midnight - every 20 minutes

FEDERAL CENTER

Rte.59 - Leaves 17th & Lawrence - downtown)

A.M. - 6:30 & 7:00 (2 runs only)

P.M. - 4:18 & 4:30 (2 only)
(Alameda to Lincoln to Colfax)

Denver

80202 - 1

03 - 11

04 - 23

80205 - 12

06 - 9

80207 - 25

80218 - 5

80220 - 6

211 - 20

212 - 6

219 - 49

223 - 3

210 - 18

222 - 14

230 - 0

216 - 1

239 - 11

Total 214

Jefferson Co

5 - 80003

3 - 04

1 - 05

12 - 07

2 - 80033

3 - 80215

2 - 14

~~25~~
27 - 226

3 = 227

3 = 235

3 - 80123

1 - 465

- 238

5 - 401

1 - 433

73



OFFICE OF
SUPERINTENDENT

THE DEPARTMENT OF THE TREASURY

UNITED STATES MINT

DENVER, COLO. 80204

April 1, 1974

Mr. Joseph Blake
Acting Deputy Regional Administrator
Region VIII
U. S. Department of Housing and
Urban Development
Federal Building, 1961 Stout Street
Denver, Colorado 80202

Dear Mr. Blake:

Subject: Proposed U. S. Mint Sites

Reference is made to the following:

a. Letter from HUD to Mr. McFarland, GSA, subject as above, dated March 27, 1972.

b. Meetings held between officials of HUD, GSA, and the Bureau of the Mint pertaining to this subject on February 19, 1974 and April 1, 1974.

c. Draft Revised Environmental Impact Statement for the New Denver Mint dated February 27, 1974, which discusses two alternate sites at (1) Park Hill Golf Course and (2) the Denver Federal Center.

In addition to your agency providing comments on the Draft Revised Environmental Impact Statement, it is requested that you provide comments on this matter with respect to your agency's responsibilities and functions per Executive Order 11512 signed February 27, 1970. It should be noted that during the referenced meetings (b. above) that it had been agreed by HUD and the Treasury Department that the principles contained in Section 2(a) of Executive Order 11512 are generally applicable to the New Denver Mint project.

Sincerely,

Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint

Frank Rhea

Three south trains
a week (Mon, Wed & Fri)
serve the DFC.

- 100 cars/month
- 80-100 cars/month
- 120,000 #/car
(60 tons)

- Bring in a room

- 9' wide 50' L 10' H

C. Yard

250
200

165A
A

Final Statement - 2 sites

250

Old mint
June -

gile

Life

no known plans to redo
6th - to interchange

4th Ave - relocated to tail
in w/ water avenue
light
} this summer

Prelim Egrs - N of 6th Egrs
indicated to 6 lanes to Colfax

Union St & to 6 lanes + turnouts
6th

Signals by this summer

Ray Bullock / Community Service
Rex Hansen / Interagency Planning

RR - GSA Commitment
to help solve

Coal 65-70 tons/car

30,000 ^{lbs} ~~psig~~ at 440 psig

4 cars/week to hot unit

60,000 - 100,000 lbs

Printed Fed Cert

8 cars/week - Winter months

RR - Fed Supply - 100 cars/month

M - W - F

Between 11:00 - 1500

Crossing time 3 to 4 minutes

Lynn Dudley, Unit Supvsr. - Traffic Investigation
- - - - - State Dept. of Highways
24-hour weekday - both directions - PARK HILL

Colorado Blvd. So. of I-70	28,600
" " No. of I-70	18,000
I-70 - East of Colo.Blvd.	56,900
I-70 - West of Colo.Blvd.	58,700
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Based on 1971 report - taken every 4 years.

Mr. Salizar - Asst. Director to Plng. & Sched.
Denver Metro

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FEDERAL CENTER

Rte.59 - Leaves 17th & Lawrence - downtown)

A.M. - 6:30 & 7:00 (2 runs only)

P.M. - 4:18 & 4:30 (2 only)
(Alameda to Lincoln to Colfax)

March 13, 1974

Mr. Joseph C. Muskrat, Regional Director
United States Commission on Civil Rights
Ross Building, Suite 216
1726 Champa Street
Denver, CO 80202

Dear Mr. Muskrat:

Reference is made to your letter of February 25, 1974 on site selection considerations for the new Denver Mint. It is true Treasury has abandoned its plans to use the South Platte Site as the site for the new Denver Mint and is now giving prime consideration to a portion of the Park Hill Golf Course and the Denver Federal Center.

This is a special purpose project in which GSA plays a support role to the Department of Treasury, who will make the final site selection. The Memorandum of Understanding between GSA and HUD is not binding on the Department of Treasury. However, Treasury is aware of the requirements of Executive Order 11512 and has expressed its intention of complying with same during a February 19, 1974 tri-agency meeting between GSA, Treasury and HUD. The availability of low and moderate cost housing was discussed at that meeting and will be considered as one of the several special considerations which must be evaluated in making the final site selection for the new Denver Mint.

As requested, we have sought the support and cooperation of HUD in this matter and will continue to do so. We will make every reasonable effort to insure the requirements and intent of Executive Order 11512 are met and the procedures delineated in the GSA-HUD agreement are followed as closely as permitted within the time frame available for this project. A copy of your February 25, 1974 letter has been forwarded to the Department of Treasury for their information and appropriate action.

It is presumed the "results of the study" referenced in the last paragraph of your letter will be the comments and/or recommendations HUD will be giving the Department of Treasury in response to their

2.

draft Environmental Impact Statement for this project. The Department of Treasury issued a draft Environmental Impact Statement on March 6, 1974 which discusses the numerous factors presently under consideration in regard to the site selection for the new Mint. A copy of the draft Environmental Impact Statement is available from the Facilities Project Manager, Bureau of the Mint, Denver Mint, 320 West Colfax Avenue, Denver, Colorado. I am confident Treasury will also make available to your office any comments concerning low cost housing they receive in response to their Environmental Impact Statement.

Sincerely,

MICHAEL J. NORTON
Regional Administrator

cc:
Housing and Urban Development

CONCURRENCE:

JOHN L. MATHEWS
Regional counsel

LEON C. SAWYER
Regional Director of Civil Rights

cc:
File
Reading 8P
cm-r
Frank Rhea ✓
Richard Anderson
Ben Reed
8P
8A

8PC:DLGess:lr

UNITED STATES COMMISSION ON CIVIL RIGHTS

MOUNTAIN STATES REGIONAL OFFICE

1726 Champa Street,
Ross Building, Suite 216
Denver, Colorado 80202
Telephone: (303) 837-2211

February 25, 1974

Regional Administrator
General Services Administration
Building 41
Denver Federal Center
W. 6th Ave. & Kipling St.
Denver, Colorado 80225

DENVER, COLORADO
DEC 1973

74
MAR 1
AM 9:34
CONSTRUCTION
MINT. DIV.
copy to: 8PG

Dear Sir:

I am writing to express the interest and concerns of the U.S. Commission on Civil Rights, Mountain States Regional Office, regarding the proposed relocation of the U.S. Mint from downtown Denver to a new site. It is my understanding that the South Platte River site originally proposed for the new Mint is no longer being considered, and that two new sites are under consideration, the Denver Federal Center in Lakewood, and the Park Hill Golf Course in northeast Denver. Further, I understand that the GSA Public Regional Office has been directly involved in the planning and consideration of sites for the new Mint.

The Commission's concern in this matter lies with GSA's responsibility under Executive Order 11512, and under the "Memorandum of Understanding between the Department of Housing and Urban Development and the General Services Administration concerning poor and moderate income housing" of June 11, 1971, and the regulations and procedures issued by the two agencies pursuant to that agreement.

As you know, Executive Order 11512 requires that GSA, among other areas, consider "The impact a site selection will have on improving social and economic conditions in the area", and "the availability of low and moderate income housing." This is further defined in revised Federal Property Management Regulations (37 F.R. 11324 (101.17.102(a) (6)) which state that GSA will consider the "availability of low and moderate income housing for employees without discrimination because of race, color, religion, or national origin: and nondiscrimination in the sale and rental of housing;" in the process of developing building projects.

It is my understanding based on information given to a Commission Staff member by Staff of the Public Building Service in October 1972, that, upon request of the Treasury Department, the GSA regional office consulted the HUD regional office pursuant to the HUD-GSA memorandum of understanding, in order to delineate a site for the proposed new Mint. Presumably,

the South Platte River site was compatible with the results of GSA's investigation.

The Commission's concern is that the two sites under consideration now also be scrutinized by GSA to determine if there is adequate low and moderate income housing available on a nondiscriminatory basis in the vicinity of the sites. As of December 31, 1973, the racial and ethnic breakdown of the 461 U.S. Mint employees showed 30.1 percent Spanish-surname, 9.5 percent black, 1.3 percent Oriental, and 58.4 percent other. Thus, there are a substantial number of minorities who would be involved in the move. It is also possible that some of the many new employees the Mint will be hiring at its new facility will be minority.

The Commission therefore urges you to seek the cooperation of HUD in evaluating the two proposed sites with regard to Executive Order 11512 and the HUD-GSA Memorandum of Understanding, if you have not already done so. I would appreciate your informing this office of the results of that study at your earliest possible convenience, and of any further determinations that are made regarding the selection of sites.

Sincerely

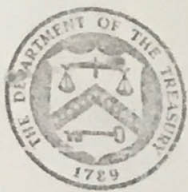
Joseph C. Muskrat

JOSEPH C. MUSKRAT
Regional Director

cc Robert C. Rosenheim, Regional Administrator, Dept. of Housing and Urban Development
Honorable Patricia Schoeder, U.S. Representative

REC'D. ADM. OFFICE
GSA REGION 8
JAN 10 8 45 AM '74
RECEIVED

Regional Administrator Correspondence Control	
For Action	For Information
Reply to be Prepared by:	
Prepared by for (Name):	
REPLY DATE:	
Comments:	
Reply to:	
Index to:	
Furnish copy of reply to:	



DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

OFFICE OF
DIRECTOR OF THE MINT

Denver City Council
City and County Bldg., Room 451
Denver, Colorado 80202

Gentlemen:

Mrs. Brooks is presently out of town. However, I have been in contact with her and she has been advised of the resolution expressing your interest in the location of the new U. S. Mint at a site on the Park Hill Golf Course in Denver.

The Mint fully intends to build its new facility in the Denver metropolitan area. Since we are forced to seek an alternative to the downtown South Platte River property, we have drafted environmental impact statements for the eventual location of our Denver Mint at either the Denver Federal Center or at Park Hill.

Your continued interest will always be appreciated and will be taken into consideration in our final decision.

Sincerely,

Frank H. MacDonald
Deputy Director of the Mint



Keep Freedom in Your Future With U.S. Savings Bonds

BY AUTHORITY

RESOLUTION NO. 6

SERIES OF 1974

INTRODUCED BY

The Entire Council

A RESOLUTION

URGING MINT DIRECTOR MARY
BROOKS TO KEEP THE MINT WITH-
IN THE CITY AND COUNTY OF DEN-
VER.

WHEREAS, the Denver Mint was originally established as a Federal assay office within the City and County of Denver in 1904; and

WHEREAS, the Mint began coining money in February, 1906, and has served the people of the United States in this capacity for the past 68 years, having manufactured four and one-half billion coins in 1973 alone, including denominations ranging from pennies to dollars; and

WHEREAS, the Denver Mint is one of the most popular tourist attractions in the State of Colorado, having a volume of as many as 3800 visitors a day in the summer months; and

WHEREAS, loss of the Mint to a location outside the Denver city limits would severely injure the economy of the City and County of Denver; and

WHEREAS, the Mint has occupied a prominent place in the history of the City and County of Denver for almost seven decades; and

WHEREAS, the need for a larger structure has prompted Mint officials to consider other locations for the Mint, including a site outside the city limits of the City and County of Denver; and

WHEREAS, Denver officials and citizens have urged that the new Mint be located at a site on the present Park Hill Golf Course that would fully satisfy the requirements specified for a new Mint;

NOW, THEREFORE,
BE IT RESOLVED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:

Section 1. That the Council of the City and County of Denver, in behalf of the people of the City and County of Denver, hereby urges Mrs. Mary Brooks, Director of the Mint, to select the Park Hill Golf Course site for the location of the new Denver Mint, in order to keep the Mint within the City and County of Denver.

Section 2. That the Clerk of the City and County of Denver shall attest and affix the seal of the City and County of Denver to this resolution and that a copy hereof be transmitted to Mrs. Mary Brooks, Director of the Mint.

PASSED by the Council

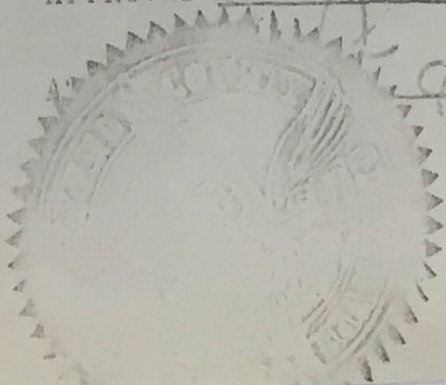
January 28, 1974

David Kase -President

APPROVED:

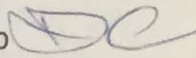
George W. Nichols -Mayor January 29, 1974

Dugan -Clerk and Recorder,
Ex-Officio Clerk of the
City and County of Denver



CITY OF LAKEWOOD
MEMO

TO: Mr. Frank Rhea, Bureau of the Mint
Mr. F.E. Ospina, Long Range Planning, City of Lakewood, Colorado

FROM: Mr. David Choate, Housing Coordinator, City of Lakewood, Colorado 

SUBJECT: Relocation of the United States Mint

DATE: January 16, 1974

A review of the impact of the relocation of the United States Mint on census tracts adjacent to the site of the proposed construction reveals the following.

The proposed facility will be located in Census Tract 112 which has the following characteristics:

1. This census tract is in a major center for commercial and industrial development in Lakewood.
2. This tract is presently impacted with low and moderate income families. The moderate income families surpass the City average by 6% of those families who are required to pay an excess of 25% of their incomes for rental housing, and double the percentage of those low and moderate income families who would have to pay an excess of two times their income for ownership housing.
3. The tract shows a slightly lower incidence of crowding than the City average.
4. The tract provides a lower than average number of owner and rental units available for low and moderate income families.
5. The tract is presently impacted with 29% of the families who are of low and moderate income means.
6. Comparing persons per household with the number of rooms per unit reveals what is characteristics of Lakewood as a whole: there are too few one, two and three room units in both gross numbers and affordable cost ranges, placing a particular hardship upon newly forming and elderly families. This forces housing costs in excess of 25% of income for 76 families desiring rental units and/or 69 families desiring ownership units.

Frank Rhea and F.E. Ospina
January 16, 1974
Page 2

Although the facility is located at Census Tract 112, because of its location, it is more uniquely related to Census Tracts 109 and 117.05. 1970 Census information reveals that six owner occupied units were available in a price range meeting the needs of 141 low and moderate income families and one rental unit available for the same number of families within a price range meeting their needs. In Census Tract 109 there are 462 rentals and 535 owner units available meeting the needs of 646 low and moderate income families.

Additionally, before the impact of the proposed new facility will be known studies will have to be made to determine the nature and extent of impaction of the additional 800 employees purposed by the relocation of the United States Mint from the existing Federal Center.

However, a tentative conclusion can be drawn were 800 newly families introduced into the area it would compound existing housing problems requiring significant public effort in improving public transportation and/or providing additional housing stock meeting the needs of low and moderate income families.

We request additional information defining more precisely the extent of the impact and the steps proposed to alleviate that impact.

DC:lm

cc: Mr. Walt Kane, City Administrator

UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION OF GENERAL
SCHEDULE AND WAGE BOARD EMPLOYEES

December 31, 1973

<u>Annual Salaries</u>	<u>No. of Employees</u>		
	<u>GS</u>	<u>Wage Board</u>	<u>Total</u>
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 - \$12,000	42	278	320
Over \$12,000	<u>42</u>	<u>42</u>	<u>84</u>
	<u>107</u>	<u>354</u>	<u>461</u>

FAMILY IMPACT STATEMENT
HOUSING DIVISION
LAKEWOOD, COLORADO
Tel: 232-2209

DATE: 1-16-74

CASE NO:

CENSUS TRACT: 112

PLANNING AREA: 9

1. Name of Development: U. S. Mint Type: Commercial Acres: 30
2. Applicant: U.S. Government Address: 320 W. Colfax Tel: _____
3. Contact: Mr. Frank Rhea

INSTRUCTIONS: Rating of 1 = Unacceptable 3 = Adequate 5 = Ideal

(A rating of any criteria below 3 is automatically cause for review of that criteria before proceeding with the development.)

GENERAL DATA:

	Census Tract		Applicant	Applicant Increase over		City	
	#	(CT) %		#	(CT) %	#	%
4. <u>Persons</u>	5980		Unknown			92787	
5. <u>Age</u> (Persons)			Unknown				
Under 25	2174	47				43586	47
25 - 34	630	11				14685	16
35 - 64	2323	39				29945	32
65 +	243	4				4571	5
6. <u>Race</u> (Persons)			Unknown				
White	5952					91187	98.0
Negro	3					130	.01
Other	25					670	.07

Family Impact Statement
Page 2

	Census Tract # (CT) %	Applicant #	Applicant Increase over (CT) %	City # %
7. <u>Land (Acres)</u>				
Total Acres	960			18,333
Single-Family in use	412.8 43			6,446 35
Multi-Family in use	85.7 9			572 3
Commercial in use	49.3 5	30	61	678 4
Mobile Home	0			25 0
8. <u>Population</u>				
Families	1530	800	52	23976
Income Levels				
\$0 - 5,000	106 7	Unknown		1934 8
5 - 10,000	333 22			5605 24
10 - 25,000	953 62			14937 62
25,000 +	138 9			1500 6
Families with income below poverty level	49 3			859 3.6
Families:				
on public assistance	49 3	Unknown		499 2
on Social Security	166 11			2349 10.0
Burglary, Robbery, Theft	5 2.5			169
<u>CRITERIA</u>				
9. <u>Housing Condition</u>				
All Year Housing Units	1664			28210
Lacking Some or all Plumbing Facilities	10 1 0			322 1
Demolition (1972(				
Frequency of Repair				

RATING: 5

	Census Tract # (CT) %	Applicant #	Applicant Increase over (CT) %	City #	%
10. <u>Crowding</u>					
% 1.01 or more Persons Per Room	40 2			1012 4	
RATING: 3					
11. <u>Cost of Housing</u>					
Values of Owner Occupied					
Total units	1385			18307	
\$0 - 10,000	18 1			378 2	
\$10 - 20,000	352 25			5571 30	
\$20,000 +	1015 74			12358 68	
Values Rental	232				
Total units				7575	
\$0 - 80	10 4			749 10	
\$80 - 150	120 52			4462 59	
\$150 +	84 36			2354 31	
Subsidized Units	0			96 1	
Shelter Income Ratio					
Units requiring in excess of 25% income for rental					
Low	27 12			1682 22	
Moderate	49 21			1106 15	
Low/Moderate income families who would have to pay in excess of 2X income for own- ership housing.	69 16			7539 7	
Job Categories & wage levels	UNKNOWN				

RATING: 2

Family Impact Statement
Page 4

	Census Tract		Applicant #	Applicant Increase over		City	
	#	(CT) %		(CT)	%	#	%
12. Vacancy Rate							
1970							
Ownership	0	0				287	1
Rental	1	0				422	2
1973							
Ownership	n/i	n/i				n/i	n/i
Rental	0	0				n/i	0
13. Structure Type and Tenure							
Number of Persons Per Household							
1	91	6				2926	11
2	415	25				7364	27
3	313	19	Unknown			5198	19
4	408	25				5759	21
5	230	14				3666	13
6+	196	12				2588	9
Number of Rooms Per Unit							
1	1	0				291	1
2	2	0				524	2
3	24	1	unknown			1711	7
4	168	10				5122	20
5	237	14				5707	22
6+	1232	75				12335	48
Single-Family Units	1537	92	unknown			21817	77
Multi-Family Units	127	8	Unknown			5915	21
Mobile Homes	0					426	2

RATING: 2

Family Impact Statement
Page 5

14. <u>Location</u>	None	Border	In
Access of Arterial Street		X	
Public Transit			X
Job Concentration		X	
Public Schools			X
Parks, Libraries			X
Medical Services		X	
Shopping		X	
RATING: <u>3</u>			

SUMMARY RATING: 2

PROBLEM AREA COMMENTS:

. See Attached Memorandum

RECOMMENDATIONS:



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 19th AND STOUT STREETS
DENVER, COLORADO 80202

April 16, 1974

REGION VIII

IN REPLY REFER TO:

8E

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Department of the Treasury
Denver, Colorado 80202

Dear Mr. Rhea:

Thank you for your letter of April 1, 1974. Your letter adequately summarized the conclusions reached at the meetings between our Departments.

With this letter, I am enclosing the Department of Housing and Urban Development's comments on the two sites proposed for the location of the new United States Mint. These comments are presented to you in accordance with our responsibilities under Executive Order 11512. The regular Department of Housing and Urban Development comments on the Draft Revised Environmental Impact Statement will be forwarded to you under separate cover.

Sincerely,

Joseph B. Blake
Acting Deputy Regional Administrator

Enclosure

April 16, 1974

The Department of Housing and Urban Development's comments on proposed site for the new United States Mint are in accordance with Executive Order 11512. These comments are presented in two parts. Part one concerns the availability of low and moderate-income housing, and part two concerns the availability of housing on a nondiscriminatory basis.

8E

Part I

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Department of the Treasury
Denver, Colorado 80202

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Sales Price

North Sincerely,

Central Jefferson Co.
South Lakewood

\$ 000 - \$15,000
\$15,000 - \$19,000
\$20,000 - \$24,999
\$25,000 - \$29,999
\$30,000 - \$39,999
\$40,000 - \$49,999
\$50,000 & Over

Joseph B. Blake
Acting Deputy Regional Administrator

14%	12%
11%	38%
4%	25%
2%	18%
100%	100%

Median

\$20,000

\$39,000

The following table shows the rental ranges of most apartments in each area:

Unit Size

Park Hill

Federal Center

1 Bedroom
2 Bedrooms
3 Bedrooms

\$120 - \$135
\$155 - \$185

\$145 - \$165
\$170 - \$210

The Department of Housing and Urban Development's comments on proposed sites for the new United States Mint are in accordance with Executive Order 11512. These comments are presented in two parts. Part one concerns the availability of low and moderate-income housing, and part two concerns the availability of housing on a nondiscriminatory basis.

Part I

Federally subsidized housing primarily serves two income groups. The low rent or rent supplement programs serve low-income households (i.e., a four-person family with gross annual income under \$7,000). The Section 236 Program serves moderate income households (i. e., a four-person family with gross annual income between \$5,000 and \$9,200). The following table shows the approximate number of these units within four miles of each site:

<u>Site</u>	<u>Low Rent</u>	<u>Section 236</u>
Park Hill	2,050	1,550
Federal Center	0	96

The Section 236 units near the Federal Center are all designed for family occupancy. Near the Park Hill site, about half of the low-rent units and 25 percent of the Section 236 units are occupied by families.

The following table shows the sales price distribution in each area for existing units available for sale in February 1974:

<u>Sales Price</u>	<u>Northeast Denver</u>	<u>Central Jefferson Co. & South Lakewood</u>
\$ 000 - \$15,000	24%	1%
\$15,000 - \$19,000	22%	1%
\$20,000 - \$24,999	23%	5%
\$25,000 - \$29,999	14%	12%
\$30,000 - \$39,999	11%	38%
\$40,000 - \$49,999	4%	25%
\$50,000 & Over	2%	18%
	100%	100%
Median	\$20,000	\$39,000

The following table shows the rental ranges of most apartments in each area:

<u>Unit Size</u>	<u>Park Hill</u>	<u>Federal Center</u>
1 Bedroom	\$120 - \$135	\$145 - \$165
2 Bedrooms	\$155 - \$185	\$170 - \$210
3 Bedrooms	NA	\$220 - \$260

It should be noted that there are few apartments in the vicinity of Park Hill. There are apartments in Commerce City and Aurora, but the rents on the units in Aurora would be similar to those in Lakewood. There are also a large number of apartments in east central Denver, and the rents in these units range from some of the least expensive to some of the most expensive in the Denver area. The apartments in Lakewood are primarily under 10 years old and are more homogenous than those accessible to Park Hill. Consequently, there are few units in Lakewood at the lower end of the above price ranges.

In general, the immediate vicinity of the Federal Center contains more available apartment units than Park Hill, but their rent is significantly higher.

The following table shows the sales price distribution for new homes completed last year in Denver and Jefferson Counties:

<u>Sales Price</u>	<u>Denver</u>	<u>Jefferson</u>
\$ 0 - \$15,000	0%	0%
\$15,000 - \$19,999	3%	2%
\$20,000 - \$24,999	71%	17%
\$25,000 - \$29,999	22%	29%
\$30,000 - \$39,999	3%	35%
\$40,000 - \$49,999	0%	14%
\$50,000 & Over	1%	3%
	100%	100%
Median	\$21,700	\$30,500

This distribution, again, shows substantially higher prices in Jefferson County than in Denver. However, there is much more activity in Jefferson County. Last year there were about 4,100 homes completed in Jefferson County and only about 400 completed in Denver.

The distribution of salaries of Mint employees indicates that 12 percent make between \$7,000 and \$9,000, and 70 percent make between \$9,000 and \$12,000. None of the employees make less than \$7,000 and only 18 percent make more than \$12,000. This indicates that none of these employees would be eligible for Federally subsidized low-rent housing, and only about 12 percent would be eligible for Section 236 units. Including this latter category, most of the employees could afford a \$15,000 to \$30,000 house or a monthly rent of \$150 to \$250. There are rental units in both areas within this

range; however, most of the units in Lakewood are in the upper portion of the range. The existing unit sales price distribution indicates that 59 percent of the units in Park Hill and 18 percent of the units in Lakewood are within the above price range.

In summary, the cost of housing in Lakewood is significantly higher than in Park Hill. Although the absolute prices and salaries will be somewhat different by the time the Mint is completed, we can expect that the relative differences will be comparable to the current situation. In general, the production levels and housing availability are greater in Lakewood. However, most of the housing is beyond the means of most Mint employees. Conversely, the availability of housing in Park Hill is more limited, but the cost of this housing is much more modest. At present, the Park Hill site would provide a much greater opportunity for moderate income employees to move close to work.

However, there remains somewhat of a paradox. One site (Park Hill) is near modest-cost housing, but little of it is available or being produced; the other site (Federal Center) is near areas of substantial housing production, but little of this is for moderate-income families. Therefore, we anticipate that the selection of either site will require the formulation of some sort of plan to assure the availability of moderate-price housing. We recommend that you contact us when construction of the Mint is underway. At that time, we will update our figures on the housing market and advise you as to what Federal and local resources might be utilized in the area to provide housing for moderate-income families.

Part II

Comments regarding availability of housing on a nondiscriminatory basis in relation to the proposed construction of the new United States Mint in either Park Hill or Lakewood:

1970 Population Statistics from the United States Census:

Denver, Colorado - Total Population	514,678
Black Population	47,011
Spanish Surnamed Population	86,345
Other Minorities	9,480
Lakewood, Colorado Total Population	92,787
Black Population	130
Spanish Surnamed Population	4,360
Other Minorities	670

Racial Breakdown of Employees of the U. S. Mint as of June 30, 1973:

Total Employment	461
Black Employees	45
Spanish Surnamed Employees	137
Oriental Employees	8

Since a fairly sizable number of present employees belong to minority groups, it can be presumed that a good number of minority-group families and individuals would be in the market for housing as new or present Mint employees.

In addition to the Federal Fair Housing Law, i. e., Title VIII of the 1968 Civil Rights Act, the state of Colorado also has a strong Fair Housing Law. The state law is administered by the Colorado Civil Rights Commission. At the present time most housing discrimination complaints in the state of Colorado are processed by the Colorado Commission on Civil Rights.

In the period from January 1973 to March 1974, the Colorado Commission processed 69 housing discrimination complaints in Denver and 2 complaints in Lakewood. The cases were handled as follows:

- 31 complaints in Denver were closed by conference (successfully);
- 38 complaints in Denver are under active investigation;
- 1 complaint in Lakewood was closed by conference (successfully);
- 1 complaint in Lakewood is still active.

During the same period, the Equal Opportunity Office of the Department of Housing and Urban Development processed 14 housing discrimination complaints in Denver and 4 in Lakewood. The cases were handled as follows:

- 4 complaints in Denver were closed by a determination not to resolve (insufficient evidence);
- 4 complaints in Denver were closed by successful conciliation agreements;
- 1 complaint in Denver was withdrawn by the complainant;
- 1 complaint in Denver was dismissed for lack of jurisdiction;
- 4 complaints in Denver are still active;
- 4 complaints in Lakewood - determination not to resolve (insufficient evidence).

It can be noted that the existence of a far greater number of complaints in the city of Denver, as compared to the city of Lakewood, does not necessarily indicate a lack of housing available on a nondiscriminatory basis within the city of Denver. As the general population statistics show, there are many more minority-group people residing within the city of

Denver and, therefore, seeking housing within Denver; so it is not surprising that there would be more complaints. There is a relatively small minority population in Lakewood, and there has been no real incentive for the movement of minorities to Lakewood.

It is well known that there is a shortage of both low and moderate-income housing within the Denver Metropolitan Area. This shortage is certainly present both within the city of Denver and within the city of Lakewood. Both Denver and Lakewood have been active in attempts to increase the amount of low and moderate-income housing available to citizens. For many years the city of Denver has actively participated in the programs of HUD designed to subsidize housing for low and moderate-income families. While the city of Lakewood has not participated to any significant extent in the production of subsidized housing within the city, the present posture of the city administration is in favor of increasing the amount of low and moderate-income housing in the community. There has been some citizen opposition to these efforts to increase low and moderate-income housing, but the city has been moving ahead.

Both Denver and Lakewood have officially subscribed to the Fair Share Housing Plan of Metropolitan Denver. Both cities have officially endorsed the plan and committed their respective communities to increasing the number of low and moderate-income housing units. The Regional Office of the Department of Housing and Urban Development has also endorsed the Fair Share Plan and has committed itself to take into account the requirements of the Fair Share Plan in the allocation of whatever subsidized units become available to the Region.

Housing marketed through the Federal Housing Administration of HUD is also bound to the requirements of HUD's Affirmative Fair Housing Marketing Program. This means that builders and developers who are seeking FHA insurance or subsidies must agree in a formal written plan to market their housing in such a way that the availability of this housing is made to be known to all members of the community and especially to those groups, generally minority groups, who would ordinarily not be attracted to the housing because it was not in an area where they traditionally lived. This Affirmative Fair Housing Marketing can be a significant tool in assisting minority-group families and individuals to find housing.

The Federal Housing Administration of HUD, together with the Home Builders in Metropolitan Denver, are working on a voluntary area-wide Affirmative Marketing Plan which would include not only housing insured or subsidized by the Federal Government, but also conventionally financed housing. This agreement would apply to subsidized, Federally insured and conventionally

financed housing. Thus, we can anticipate that most new housing in the Denver area would be marketed on the basis of an Affirmative Fair Housing Marketing Program specifically designed to open all housing to all segments of the community and especially to assure minority-group home seekers that housing is available to them.

It seems that if there are significant barriers for minority-group people seeking housing either within Denver or Lakewood, these barriers relate more to the availability of housing within the income limits of the home seeker rather than the barrier of discriminatory housing practices. While the minority-group home seeker might encounter discrimination either within the city of Denver or the city of Lakewood, it seems that this discrimination would be more of an isolated instance rather than a significant organized barrier. Both the city of Lakewood and the city of Denver have taken stands in support of increased numbers of moderate income housing units and stands in favor of equal rights for all citizens. The Denver Home Builders Association through its commitment to the principles of Affirmative Fair Housing Marketing also supports a program of marketing housing on an equal opportunity basis.

The Regional Office of the Department of Housing and Urban Development will be pleased to work with the Bureau of the Mint and the officials of the city in which the new facility will be located to increase the amount of moderate-income housing available in the area.

Lakewood City Council Meeting 7:00 P.M. April 8, 1974

Ted Bryant 2415 S Hoyt
Pres. Jeff Co Bond & Realtors
Unanimously voted for

Malcolm Collier 9415 W 10th Ave - Favor 100%
Lakewood Chamber of Commerce

Dr. David Adams - Favor completely

Judith H. Cozzens
Green Mountain Side Care Assoc.

- need guarantee that to bring in money
It would not be a problem
- also entrance to 6th Ave
- Closed off at corner of 6th Ave
- Would object unless driveway at corner
on 6th or West entrance along 6th

George Thom - Favor 100%

Bruce Carter - Favors

Mrs. Beard 6800 W Archer Place

Has concerns - Warden where people
will live

- Warden about tourist

- B. Resolution 74-100 authorizing Denver Water Board to construct and maintain water conduit in City of Lakewood R.O.W. at several locations.
- C. Resolution 74-101 authorizing purchase of skid-mounted boiler/storage unit for showers at Morse Park.
- D. Resolution 74-102 accepting bid for landscaping plant materials for Department of Parks and Recreation. Bid #0125
- E. Resolution 74-103 accepting bid and authorizing contract for barbeque fireplace for Department of Parks and Recreation. Bid #0126
- F. Resolution 74-104 accepting bid for Traffic Signal Equipment for Traffic signal construction for Department of Community Services - Bid #0123
- G. Resolution 74-105 accepting proposal and authorizing contract for formulating Position Classification Plan for Department of Administrative Services.
- H. Resolution 74-106 approving final plat of Wadsworth 101 Subdivision located north of Hampden, west of Wadsworth. Case J-74-2 (Concept 80)
- I. Resolution 74-107 accepting bid and authorizing contract for Lakewood Park Irrigation System #3 for Department of Parks and Recreation -Bid #0131
- J. Resolution 74-108 establishing dates for suspension of the liquor license of DHR Corporation dba Lemon Tree Lounge.
- K. Resolution 74-109 authorizing purchase of chain link fence for Department of Parks and Recreation.

VIII. REPORTS

- A. Mayor
- B. City Administrator
- C. City Attorney
- D. Council President
- E. Councilmen

IX. CONSIDERATION OF COMMITTEE, COMMISSION AND BOARD MATTERS

X. ADJOURNMENT

next Monday night

A G E N D A

REGULAR MEETING OF CITY COUNCIL

CITY OF LAKEWOOD, COLORADO

7:00 P.M.

April 8, 1974

MEETING CALLED TO ORDER

- I. ROLL CALL
- II. PLEDGE OF ALLEGIANCE
- III. PUBLIC COMMENT-Persons wishing to speak on any matter, other than Agenda Items, will be given opportunity, if they have signed the Public Comment Roster. Three minutes will be allowed each speaker.
- IV. APPROVAL OF MINUTES OF MARCH 25, 1974.
- V. PUBLIC HEARING-Citizen comments relating to the proposed Mint site at the Federal Center.
- VI. GENERAL BUSINESS
 - A. Notice and Call for Special Council meeting to be held April 15, 1974.
- VII. ORDINANCES ON FIRST READING
 - A. Ordinance 0-74-22 amending Ordinance 0-70-102, rezoning land located at approximately Kipling and Hampden, to extend time within which plat may be filed.
 - B. Ordinance 0-74-23 amending Ordinance 0-72-58 rezoning land located at southeast corner of Wadsworth and Dartmouth extended, to extend time within which plat may be filed.
 - C. Ordinance 0-74-24 vacating cul-de-sac bulb located on east side of Carr street, north of Hampden - Case L-74-3 (Concept 80).
 - D. Ordinance 0-74-25 relating to Case E-74-1.
Applicant: Keasling
Location: 1385 South Pierce Street
From: A-1 to R-1B
Purpose: Home
Approved by Lakewood Planning Commission.
- VIII. RESOLUTIONS AND PROCLAMATIONS
 - A. Resolution 74-95 authorizing addendum to agreement with Parsons, Brinkerhoff, Quade and Douglas for development of Public Finance Model for City of Lakewood.

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PLAN HOMEBUYER FORUMS—Making plans for a series of three free homebuyers' forums to be held at area high schools April 16-17-18 are, from left, Hale W. Moore, regional manager of Investors Mortgage Insurance Co.; Guy E. Boyer, executive vice-president of Western Federal Savings; and Arthur Gaeth, chairman of the Committee for Home Ownership. Each night's program will be identical, and will provide information from leading home builders, Realtors, and lenders on location selection, how to select the right home, and available financing. The public service programs—each slated for 7 p.m.—will be held at Arvada Senior High School, 7951 W. 65th Ave., Tuesday, April 16; George Washington High School, 655 S. Monaco Parkway, Wednesday, April 17; and John F. Kennedy High School, 2855 S. Lamar St., Thursday, April 18. Advance reservations are not required.

● Larry J. engineering Colorado man of the of Renssel of Troy, assume the will head engineering celebrating this year, engineering the first speaking engineering

● James K. ed a comm assistant v mercial loo National M Kamicar is souri Sch gree in en been active more than

● Lane K. cal secreta Pollution t state's De been name division to who reside T. Dreyf said Kirk tinue in E retary, a March. 19

● James I Senator, and leg Colorado and been nam the new Colorado (new quate St., De number

New \$150 million complex announced for area just west of Federal Center

An estimated \$150 million planned unit development including a commercial and office village and a residential community with cluster-type condominiums and townhomes will be constructed on 261 acres in the foothills area of Lakewood.

Announcement of the project, called Union Square, was made by Earell E. Kissinger, partner in the Denver-based National Western Capital Co. with offices at 230 S. Holland St. in Lakewood.

Union Square is bordered on the west by the Community College of Denver, Red Rocks Campus; on the north by the Sixth Avenue Freeway; and on the east by the Denver Regional Federal Center complex.

Principals in the project are Kissinger, William H. Phillips and Thomas P. Morrow and exclusive listings for sales of land have been awarded to Grubb & Ellis Co. John G. Russell of Grubb & Ellis has been named project manager.

Kissinger said development of Union Square is expected to be completed within four to five years and that construction of the first buildings will begin in the summer of 1974.

Of the total 261 acres, 103 have been designated for construction of the commercial and office village. Among the types of businesses planned as tenants are restaurants, a dinner theater, galleries and boutique shops.

One section of the commercially zoned area has been set aside for

construction of a financial plaza which will house a commercial bank, savings and loan institution and other financially oriented businesses, Kissinger said.

Included in the commercial section will be enclosed landscaped malls, open decks for pedestrian traffic and outside dining, and pedestrian bridges. Parking will be bermed for esthetic purposes, Kissinger noted.

The residential community of Union Square will cover 111 acres and consist of cluster-type condominium and townhouse residences with common landscaped greenbelt areas, and pedestrian and bicycle paths.

Open space areas will include numerous lakes and ponds connected by streams with falls. Also part of the development is a 23-acre park area that has been dedicated to the City of Lakewood.

In addition, Kissinger said that National Western has dedicated land to the Jefferson County School District for construction of an elementary school.

Altogether, Union Square will have more than 30 per cent open space, not counting the acreage for the park, mall areas and the school site, Kissinger noted.

One of the most important aspects of the Union Square location, Kissinger observed, is the easy access to major transportation facilities.

Incorporated into design of the commercial and office village are

Cont. on Back Page, Col. 1

THE DAILY JOURNAL
April 8, 1974
Volume 77, Number 218

---Union

Continued from Page 1, Col. 2

plans for what will be the most western station of the Denver metropolitan area's proposed Personal Rapid Transit system.

Also, Kissinger noted, the early action plan of the Regional Transportation District has provided for express bus service to downtown Denver. He added that the downtown area is only 10 minutes driving time from Union Square by Sixth Avenue.

As part of an agreement with the City of Lakewood, National Western has begun widening of Union Boulevard to six lanes with a 26-foot landscaped and lighted median strip.

In planning of Union Square, Kissinger noted that National Western has given steady attention to complete cooperation with the City of Lakewood, especially in the areas of traffic and open space considerations.

All architectural and land planning for Union Square was prepared by HWH Associates Inc. of Denver while the landscape architecture was carried out by Godi Associates Inc. of Denver. Project engineers are Tri-Consultants Inc. of Denver.

More than a million square feet of construction is involved in the project, according to the architectural firm. Plans now call for almost 1,500 dwelling units in the residential area.

Daily Journal

Apr. 8 . . . National Secretaries Assn. (Intern. Regular monthly dinner-meeting, honoring Future FSA). Continental Denver Motor Hotel, 5:30 p.m. dinner. Dr. J. Quinton Jones, head of College Board, Recognition to FSA scholarship winners. Business and Barnes Business College. Reserve. Pearson, 1282 S. Routt Way, Lakewood 80226.

Apr. 9 . . . Denver Legal Secretaries Assn. Dinner and election of officers for 1974-75 year.

Apr. 10 . . . International Fence Industry Assn. Executive committee meeting, 4:30 p.m., Elcar F.

Just call him at 825-3371.

on and how much it will cost.

I will be happy to tell you how to get in on

—know what's up.

scutives, the purchasing agents, the specifiers

which lets the decision-makers—

“Presenting . . .”

a new column,

ur man Darel Hamilton is authoring

The Daily Journal can help you.

business and construction market?

to the Colorado and Wyoming

to sell

or a new process . . .

Have you a new product . . .

The approximate square feet of the courts are as follows:
a. 700 cubic yards of excavation.
b. Placement and compaction of 950 cubic yards of gravel fill.
c. Mixing and placing of 6,470 square yards of 2" asphaltic concrete.
d. Mixing and placing of 11,800 square yards of colored L.A.Y.-K.O.L.D. or equal surfacing.
e. Placement of eight complete tennis nets.
f. Placement of 3,500 square feet of 8" thick reinforced concrete block on 21.5 cubic yards of concrete footings and foundation walls for handball court walls.
g. Placing of 8,600 square feet of wall coating for handball court.
h. Placement of 1,691 linear feet of 10' chain link fencing and gates.
i. Moving and placing of 200 feet of sprinkler system and heads.
j. Placement of complete Quartz lighting systems for two double tennis court layouts, one four tennis court layout, and four handball courts.
STANLEY H. DIAL
City Manager
City of Englewood
Published 3/8, 3/12, 3/14, 3/19, 3/21, 3/26, 3/28, 4/2, 4/4 and 4/8/74-104
in The Daily Journal
Published in The Daily Journal 418
First publication March 25, 1974-M
Last publication April 22, 1974-M
427-1516
Westminster, Colo. 80030
3380 W. 72nd Ave.
Attorney for Plaintiff
BY WILLIAM PERRY
LAW OFFICES OF
WILLIAM PERRY
Dated January 11, 1974.
complaint
described in Exhibit A attached to
Creek County, Colorado, and de-
upon real property situated in Clear
forth in complaint attached hereto.
mechanics' lien as more fully set
This is an action to foreclose a
days after the summons is served.
may not be available until ten
court concerning this civil action
the court. Information from the
notice upon your proper request to
tion may be dismissed without
the summons is served, or the ac-
must be filed within ten days after
clerk of the court. The complaint
may not now be on the complaint
the civil action, then the complaint
not contain the docket number of
VARIOUS: If this summons does
summons upon you.
within 30 days after service of this
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7:00 West

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3:00 W

25

210

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69
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200

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131

Bicycles - 1

Motor Cycles - 3

Carports 69 @ 3.2

3.2

138

207

220.8

221 people

141 Ind. Autos

362

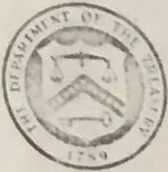
285
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216

(411)

Carports 221 people

Ind autos 216

437



OFFICE OF
SUPERINTENDENT

THE DEPARTMENT OF THE TREASURY

UNITED STATES MINT

DENVER, COLO. 80204

January 17, 1974

Mr. Don Johnson
HUD
Federal Building, Room 14048
18th & Stout Streets
Denver, Colorado

Dear Mr. Johnson:

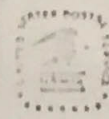
Forwarded is the data we discussed this date. As of this date we do not have an exact figure as to the number of employees of the new mint. We cannot determine this exactly until we proceed further with design, particularly with respect to the degree of automation of materials handling and coin making machinery. Our estimate at this time is a total of 800 employees. Also, as I mentioned to you on the telephone, I would expect that our average wage board grade would increase slightly in the new mint because of the increased complexity and size of the machinery, more sophistication, pollution measurement and control systems, etc.

Sincerely,

FRANK W. RHEA
Facilities Project Manager

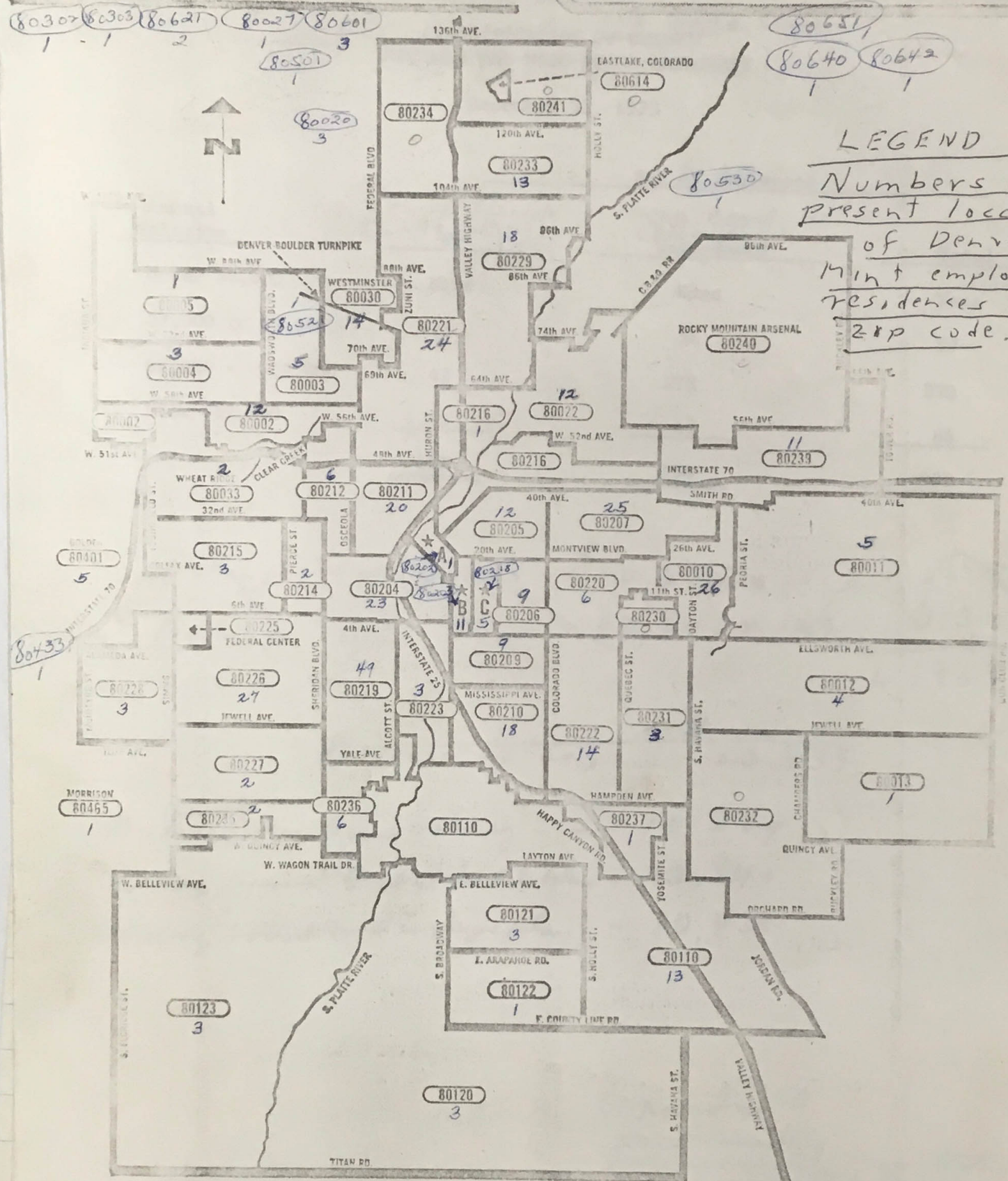
Enclosures 2:
Greater Metro Denver Map
Salary & Wage Schedule

GREATER METRO DENVER



HELP US
HELP YOU
Use Zip Code

For Additional
ZIP Code
Information See The
Yellow Pages For
Post Office Listed Under
Government Offices-US



LEGEND

Numbers show
present location
of Denver
mint employees
residences by
zip code.

UNITED STATES MINT ¹⁸
DENVER, COLORADO

1/15/74

AND WAGE SCALE
CLASSIFICATION OF GENERAL
SCHEDULE AND WAGE BOARD EMPLOYEES
OF EMPLOYEES

December 31, 1973

Annual Salaries	No. of Employees		Total
	General Schedule (White Collar) GS	Wage Board (Blue Collar) Wage Board	
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 - \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Wage Board - $\$10,234 \times 354 = 3,622,836$
Average GS - $12,841 \times 107 = 1,373,987$
4,996,823

Average Salary = $\$10,839$

Average Wage Board Salary - $\$10,324$
Average General Schedule Salary - $12,841$
Average Annual Mint Employees Salary - $10,839$

Appendix E

New Inside
Commercial Import Statement
New United States Mint
1974

1-18-74

U.S. MINT, PARKING LOTS

WEST SIDE

7:00 AM	To	3:00 PM.	Includes about 7 cars for 8:00 to 4:30 people	75	vehicles
3:00 PM	To	11:00 PM.		65	
11:00 PM	To	7:00 AM.		25	
				<u>165</u>	

EAST SIDE

7:00 AM	To	3:00 PM	23
8:00 AM	To	4:30 PM	41
11:00 PM	To	7:00 AM	42
			<u>106</u>
			<u>271</u>

+ Private parking

OK

~~3:00 P.M.~~

8:00 to 4:30 West Side

Alce

Serge

Shirley

7:00

70 Carr
23
 93

Trucks

8:00 A.M. 46

x 5 - Ship Delivery

3:00

60

12 5 - Coin Shipment

8 - Small Deliveries

11:00

67

For 462 employees

7:00 West 70
 East 23
 93

New

93 180

46 60

60 120

67 120

266 Total 420

19 Private 140

285

8:00 W 5
 E 41
 46

3:00 W 60

11:00 W 25
 E 42
 67

New Mint

220 Plant x $1\frac{3}{4}$ = 385

auto -
 $\frac{385}{3} = 128$ say 125

46 x 1.5 = 69 say 70
 23
 69

375

70

445

286 $\overline{)445.0}$
286
 1590
 1216

$$414 \frac{2}{3} = 138 \text{ km } 135 \times 3 =$$

$$\begin{array}{r} 414 \\ \times 405 \\ \hline 2070 \\ 16560 \\ \hline 168540 \end{array}$$

$$\text{of } 800 \text{ km} = 495 \times \frac{235}{100} = 80 \text{ km } 80$$

$$285 \times \frac{800}{100} = 495 \text{ km}$$

Correct way

km

$$4170 \text{ no way}$$

$$41 \times 15 = 615 \text{ km } 70$$

$$220 \times 1.8 = 396 \text{ km } 400$$

Empirical data

$$\begin{array}{r} 48 \\ \times 3472 \\ \hline 3936 \\ 15360 \\ 161280 \\ \hline 166704 \end{array}$$

$$\begin{array}{r} 302 \\ \times 3340 \\ \hline 9668 \\ 96680 \\ 966800 \\ \hline 1000000 \end{array}$$

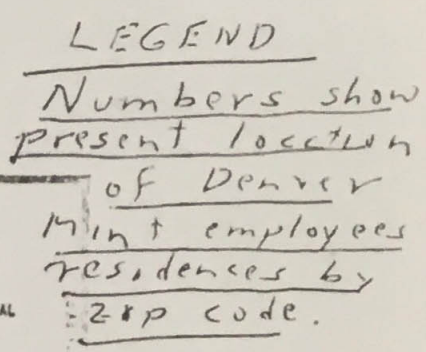
$$\begin{array}{r} 480 \\ \times 434 \\ \hline 16320 \\ 163200 \\ 1632000 \\ \hline 2080320 \end{array}$$

$$\begin{array}{r} 235 \\ \times 215 \\ \hline 4950 \\ 47000 \\ 470000 \\ \hline 505250 \end{array}$$

$$\begin{array}{r} 176 \\ \times 2604 \\ \hline 1056 \\ 10560 \\ 105600 \\ 1056000 \\ \hline 4580176 \end{array}$$

HELP US
HELP YOU
Zip Code

For Additional
ZEP Code
Information, See
Yellow Pages or
Post Office List
Government Code



MINORITY CENSUS REPORT

U. S. Mint, Denver, Colorado

(Agency)

PAY SYSTEM	Total Full-Time Employees		Black				Spanish- Surnamed				American Indian				Oriental				All Other Employees				Handicapped			
	1972 1973		1972		1973		1972		1973		1972		1973		1972		1973		1972		1973		1972		1973	
	Number		No.		Pct		No.		Pct		No.		Pct		No.		Pct		No.		Pct		No.		Pct	
TOT. SYS.	468	461	45	9.6	44	9.5	138	29.5	139	30.1					6	1.3	6	1.3	279	59.6	269	58.4			3	.7
GEN. SCH.	111	107	7	6.3	9	8.4	7	6.3	6	5.6					1	1.0	1	.93	96	86.4	90	84.1			1	.97
GS 1-4	12	14	1	8.3	2	14.3	1	8.3	2	14.3									10	83.4	9	64.3			1	7.1
GS 5-8	63	58	5	7.9	6	10.3	6	9.5	4	6.9					1	1.6	1	1.7	51	81.0	47	81.1				
GS 9-11	21	19	1	4.8	1	5.3													20	95.2	18	94.7				
GS 12-13	10	11																	10	100	11	100.0				
GS 14-15	5	5																	5	100	5	100.0				
GS 16-18																										
WAGE GRADE	357	354	38	10.6	35	9.9	131	36.7	133	37.6					5	1.4	5	1.4	183	51.3	179	50.6			2	.50
---\$5,499																										
\$5,500- \$6,999	16		4	25.0			6	37.5											6	37.5						
\$7,000- \$7,999(1-2-3)	19	14	3	15.8	2	14.3	10	52.6	2	14.3									6	31.6	9	64.3			1	7.1
\$8,000- \$8,999(4-5-6)	31	20	9	29.0	1	5.0	12	38.7	9	45.0									10	32.3	10	50.0				
\$9,000- \$9,999(7-8-9)	196	41	18	9.2	8	19.5	86	43.9	17	41.5					5	1.4			87	44.3	15	36.6			1	2.4
\$10,000- \$13,999(10+)	88	264	4	4.5	24	9.1	16	18.2	102	38.6							5	1.4	68	77.3	133	50.4				
\$14,000- \$17,999	7	15					1	14.3	3	20.0									6	85.7	12	80.0				

Tourists 140 can
5 buses

Compass 20

165

2

330

470
40
430
120

402 221 4408

Trustees -

Golfers -

Open Space -

Residential Zoning Change -

\$1.5 million

48,000

52,000

Parking

A N

2 2 Bunkers

13 / 8
P.H.H.H.

2 Court Cars

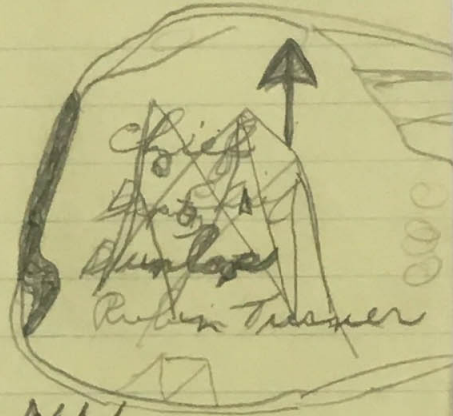
1 SC & MP

1 D.C.

1 Admin Off

1 Pub Admin Des

Area Admin



N.W.

RR
P.S.C.

Estelle Brown
321 6848

✓ E.P.A. - Geise 4831

✓ C.O.G. - Ebertowski 758 5166

H.E.W. - Moore 3119

H.U.D. - Keith Gurdick 837 3207
Ex 0 11512

✓ U.P. - okay

P.S.C. - okay for appraisal
gitter site

Foundation Conditions

✓ Sanitary & Storm Sewers
Water

C.O.G. - Ebertowski

^{To}
Park Hill

Regional Land Use Plan

- Park & open space

Would require amendment

C.O.G. would object without
change

Requires council action - some members
quite opposed to ~~rem~~ changing open
space to commercial/industrial

H.E.W. - Mr Moore

Should be preserved as open space
Would not veto

Pave Pampar - Chief Planner DRCOG

Latham - Chief Planning, Lakewood

EIS

Traffic DISCUSSION

Indirect sources

- Permit
Year's ~~data~~ Meteorological Data -

Often but do not have to have
Complex Source - Federal Register
Call Bill Geise

Tables / Charts - dir

Vehicle Station

Current levels ambient air

Federal

Generated

↓ Meteorological Data

Stoplight

Regional Flow Diagram

Add

Traffic Count

I-70 / Cal

Highway / 6th Avenue

Availability of public transportation

Federal Register - Nov 7, 1973

- Import

VMT - Demonstration area
is at around Park Hill

F. P. A. - Office of Federal Activities

Bill Dickinson (Wash.)

755 6782

Adviser
less import at Fed. Center

477
2838

(284)

~~With respect to schools~~

Present

Denver $\frac{214}{461} = 46.4\%$

~~Within 10 mi. radius~~
~~82%~~

Jeff Co $\frac{73}{461} = 15.8\%$

5 mile circle is
essentially in Denver
i.e. areas outside about
equal area inside but
one out of circle

If rendered center in half way between
present & Fed Center

then for present would be:
~~Denver~~

$\frac{1}{3}$ of 5 mile circle
would be in Denver

~~Denver~~

In Denver

$\frac{1}{3} \times 214 = 71$

would lose 143

~~Jeff~~

~~On Jeff Co~~ $46.4\% \times 800 = 370$

~~Further $\frac{2}{3} \times 214 = 142$~~

$\frac{71}{461} = 15.4\% \times 800 = 123$

Net
expected loss 247

In Jeff Co

60% of 15 mile circle in Jeff Co

~~$48\% \times 461 \times 60\% = 271$~~

$798\% \times 800 \times 60\% = 470$

Present

Gain

$\frac{73}{397}$

$$15 \text{ mi wide} = \pi (7.5)^2 =$$

$$= \pi (15)^2 = 714 \text{ sq. miles}$$

Denver
Future

Denver area is 117.6 sq. miles

$$\frac{214}{461} \cdot 800 \cdot \frac{117.6}{714} \cdot 98\% = 60 \quad \text{Do not use}$$

5 mile circle Present

$$\text{Fed Center } \frac{170}{400} \times 190 = 80 \times \frac{800}{461} = 140$$

$$\frac{2}{3} \text{ in Lakewood } \times 140 = \text{sq. } (105)$$

$$461 \times .41 = 190$$

$$2 \quad 10, \overset{500}{\text{000}}$$

$$3,200 \quad 42,$$

Housing Unit -

D - 200,000

Suburbs 300,000

School Population

80,000

180,000

$$D \text{ of } 59\% \text{ many } 190,000 / 80,000 = .42$$

$$\text{Suburbs } 29\% \text{ many } 294,000 / 180,000 =$$

$$484,000 / 260,000 = 0.54$$

$$\begin{array}{r} 300,000 \\ \times .02 \\ \hline 6000.00 \end{array}$$

$$\begin{array}{r} 9750 \\ + 247 \\ \hline 68250 \\ + 39000 \\ \hline 19500 \\ \hline 2408250 \end{array}$$

To Jeff Co

Add 400 employees

$$\approx 0.54$$

400

216.00 students in public school

1.2 per family

400)

76,000 73-74

2.4

180,000

1.68

2.44

216

1512

$$294 \overline{) 180}$$

KWAL PAINTS, INC.

800 WATER STREET • DENVER, COLORADO 80217 • PHONE 303/455-4793

MESSAGE

TO Frank W. Rhea
Representative of the Mint
Denver, Colorado

DATE 5/15/74

- Hi Col. Rhea -

attached you will find
 an article stating "HSD"
 is in favor of the Park
 Hill site for the new
 location of the Mint.

I was glad to know
 this important group favors
 a Denver location, rather
 than Jefferson County.
 Personally, I wish

BY

Form N-73 © The Drawing Board, Inc., Box 505, Dallas, Texas 75221

INSTRUCTIONS TO SENDER:

1. KEEP YELLOW COPY. 2. SEND WHITE AND PINK COPIES INTACT.

REPLY

DATE

you would change your
 mind and come back to
 the Platte River location.
 Surely, something would
 be done with the
 railroad tracks to hide
 them from the Mint's view.
 Trees, or shrubs or a
 beautiful fence, could
 hide it. Therefore, if
 you can't consider the
 Platte Site the Mint
 should be kept in Denver.
 Many, many people think so I
 agree. *John Shipman*

SIGNED

INSTRUCTIONS TO RECEIVER:

1. WRITE REPLY. 2. DETACH STUB, KEEP PINK COPY, RETURN WHITE COPY TO SENDER.

HUD backs Denver site for new Mint

The U.S. Department of Housing and Urban Development (HUD) has recommended that the Denver Mint be relocated in Denver.

According to HUD, relocating the Mint in Lakewood — which is one plan under consideration — “would run counter to the continued efforts of federal agencies to stimulate and renew the core city, which serves as the sustaining element for the entire Denver metropolitan area.”

Putting the Mint outside Denver would have substantial harmful effects on employment, the employment of minorities, transportation and tourism, HUD said.

The loss of the Mint's annual \$5 million payroll would substantially damage Denver's economy and tax base and would especially harm minorities who comprise 41 per cent of the Mint's staff.

Putting the Mint on the Park Hill Golf Course in northeast Denver, HUD said, would benefit an area where unemployment is especially high. The Lakewood site's lack of mass transit would prevent many low-income persons from commuting from the core city to the suburbs.

HUD estimated that the Lakewood site would require Mint employees to drive 1,800 miles a day farther than the Park Hill location, since most Mint employees live in Denver.

The recommendation — submitted to Frank W. Rheatt, Mint facilities project director — noted that HUD has “invested approximately \$80 million for community development with the goal of arresting blight, stabilizing neighborhoods and providing a decent living environment within . . . Denver.

“We are most concerned,” HUD said, “that other federal agencies take actions which protect and enhance this substantial investment.”

The recommendation noted that many of the HUD developments are located in the Park Hill area. Construction of the Mint in that area would enhance HUD's investments, the recommendation said.

KEYST

An instant
built in ele
black and w
matically adj
Value 89.95

NO MINT LOADING
FOR GUNNET
AGICUBE

State Health Department
Portland, Ore

Dear A & R in
Quality Measurements

December 18, 1973

Gary Herbert
State Highway
CO monitoring
in Kijilard

Findings: _____

No _____

Private Physician _____

(name)

(address)

wn _____

nactive) _____

Signed by _____

FINAL EIS

Papers/Contacts - Required/Needed

Shirley

~~Exterior noise standards of City of Lakewood~~

th

~~Griffin plans for replacing self~~

~~Jefferson County School District~~
~~operates Lakewood schools?~~

R-1
Bob Eckhardt
Jefferson County School District
231 6971

~~Contact -~~

~~- Project additional school level~~
~~- Problems?~~

Friday

~~Statement re legality of locating in Fed Center~~

~~Info on plans/schedule for upgrading house - 1st but Interstate~~

Nov?
on
during
leaving
it will
be done

~~Coordinate w/ Lakewood re to evaluating traffic circulation patterns thruout Fed. Center~~

~~Volume of solid waste~~ $250 \times 2 = 500 \text{ cu yds}$
~~- Method of disposal~~
~~- Give most rough recycling~~

~~Drawn design to reduce energy consumption~~

$$\begin{array}{r} 2576 \\ 2 \\ \hline 5152 \end{array}$$

70

70

60

4200

$$\begin{array}{r} 2000 \\ \hline 8400000 \end{array}$$

Action Required in Final EIS

0 Need more info. / Dcd.

EIS Comments Summary

(1)

Lakewood

1980 Fix
- not next year

- ~~Approved and/or~~
- ~~Request further info~~
 - ~~traffic~~
 - ~~public transportation & housing~~
- ~~More projections re housing~~
- ~~Discussion of additional train traffic~~
- ~~Clear up steam / fog matter~~
- ~~Interior noise~~
- ~~Commitment that exterior noise standards of City of Lakewood will be met~~
- ~~Dust control during construction~~
- ~~How a solid waste disposed~~

Interior

- ~~National Historic Place~~
 - ~~Specific plans for replacing the golf holes~~
- Statement that they have been consulted etc.*

Greeter Park Hill

- ~~Use 1980~~
 - ~~dir measurements cited are not best available for Park Hill~~
- ~~VMT model inadequate~~
 - ~~no allowance for housing densities~~
 - ~~no allowance for problems of inner city people~~
- ~~Requiring Federal endorsement of a small integrated community.~~
- ~~Center of employment too scattered to be well served by public transportation.~~
- ~~People will spread out more at Greeter Center due to unavailability of housing~~
- ~~Impact of Tourist VMT~~
- ~~Impact on Jefferson County schools~~

Greater Port Hill Cont'd

~~Mass Commnt re public transportation~~

~~Mass Commnt re Federal Govt.~~

~~relying commitment to "integrated
community".~~

EIS Comments Summary

(2)

654

~~The State Historical Society of Colorado~~

~~No historic sites affected at either location.~~

City and County of Denver

→ ~~Legal question re locating the route outside Denver~~

~~Cost paid for at Lakewood would add to the suspended particulate air pollution load. Not quantified.~~

~~Potential traffic problems~~

→ ~~- RR crossing 6th Av at Grade~~

→ ~~- 6th & Union interchange~~

→ ~~Social & economic impact of route not fully examined.~~

→ ~~Clayton Trust Property~~

~~- do not imply that this is a minor park~~

→ ~~Substantiate - This site is relatively unfavorable from a meteorological point of view.~~

~~Old discussion re RR grade crossing~~

→ ~~Bus service better at Park West than at Dedham Center~~

→ ~~Current Lakewood is a draft plan, not yet adopted~~

→ ~~Redo VMT figures (use 1985 figures & reference?)~~

→ ~~Why reduction from 62% now auto to 56%~~

EIS Comments summary

(3)

Denver (cont'd)

- ~~No increase projected for increase in visitors from within state. Visitors were specifically for visit.~~
- ~~Should Admin acknowledge not representative Park will be high ground~~
- ~~Worst pollution summer and levels are centered north of the city.~~
~~Compounding problem of air city if one moves to a suburb.~~
- ~~Denver has school system where Lakewood would have more overloading~~
- ~~Economic loss to Denver.~~
 - ~~Worsen's economic impact~~
- ~~Social ramifications~~
- ~~2nd. Center in an affluent city~~
- ~~Clayton Trust close to other major tourist attractions~~
 - ~~Stapleton Zoo~~
 - ~~Coliseum Convention Center~~
 - ~~CBP Hotels Sports Complex~~
- ~~Tourists would be travelling fewer vehicle miles to Clayton Trust~~

Patschroeder~~Economic benefit to Park Hill~~~~Core area stabilization~~~~Schools~~~~- At Park Hill would help to integrate~~~~- NE Denver under capacity where Lakewood continually expanding~~~~Air Pollution~~~~VMT employer less~~~~Tourist VMT less because of three~~~~other tourist attractions nearby~~~~Confusing to reader~~~~Suspended particulates generated only by stationary sources~~~~VMT will have no proven effect~~~~- amount of suspended particulates~~~~Clerk~~~~Total traffic around Fed Center is more than around Park Hill~~~~Clerk~~~~Measurement of traffic on 6th Ave. in west of city. Higher count on 6th heading toward Denver~~~~Traffic coincidence w/ existing direction~~~~Questions~~~~PRR / Transfer to human matter~~~~- Same as Fed Center site~~~~- no bus line serving DC mint site~~~~Conclusion omits discussion of economic ^{economic} ~~social~~ impact on F.C. site~~~~Distance from Stapleton is a factor~~~~Dept Health study omitted~~~~- effect of closing present mint~~~~- add reduction of VMT by closing of AF accounting for Federal Center~~

F15 Connect Summary

(5)

State Dept of Highway

→ ~~Study to determine extent of~~
~~road increase in air serving~~
~~Fed Center~~

League of Women Voters of Denver

~~Removable and the psychological blow~~
~~to Denver~~

~~Positive influence of locating Mint~~
~~at Park Hill~~

→ ~~PRT runs year in the future~~
~~airport related transit facilities~~

OEO

~~Park Hill letter for social, economic~~
~~and cultural benefits~~

Cal. Dept of Health

→ ~~Dull station more representative~~
~~of air quality~~

~~Two site conditions re suspended~~
~~particulates~~

→ ~~Auto mobile caused pollutants~~

~~- CO~~

~~- Photochemical oxidants~~

~~- Exceed Fed ambient air quality~~
~~standards frequently over large~~
~~portions of the Denver area~~

~~Park Hill in demonstration area to~~
~~attain & maintain national ambient air~~
~~quality standard for hydrocarbons by Mid-1977~~

~~No new source of PRT could be tolerated~~
~~w/o restriction on motor vehicle emissions~~
~~technology breakthrough~~

Conclusion
not advised
that not advised
in final report
to the
Fed Center

FIS Comments Summary

(6)

Colorado Div. of Planning

of
for CTP

- ~~More are impact on living environment~~
- ~~- residential property values~~
 - ~~- future land use~~
 - ~~- neighborhood stability~~

~~Analysis of alternatives~~

- ~~- Continue use of existing mint~~
~~with annex~~
~~- Riverside & Platte river~~

~~More are impact on use of existing mint~~

~~Background~~

~~around Denver Fed Center~~
~~Additional studies~~

- ~~- Traffic & transportation~~
- ~~- Availability of low and moderate income housing~~

~~Land use around will be compatible~~

~~Projections re effect on housing~~

~~AP activity - frequency, numbers~~

~~Steen/Toy~~

FIS Comments Summary

(7)

DRCOG

From Bethany

- ~~Col. Dir. of Highway is modifying~~
~~Interchange - 6th & Interchange?~~
- ~~Under construction for six lanes~~

~~→ - RRT station immediately adjacent~~
~~to M. it site.~~

~~Council Staff~~

~~→ Lack of discussion re social impact~~

~~→ Center of gravity concept subject~~
~~to dispute~~

~~→ 1971 JRPD origin and destination~~
~~study - one trip length = 7 miles~~

RTD

cell
study

~~Short Term & Long Term Plans~~

~~Short Term~~

~~Park Hill bus service now - Route 15~~
~~which connects to other routes~~

~~→ Early Action Program will be initiated~~
~~for every 15 minutes, ensuring~~
~~that Park Hill will be readily~~
~~accessible for employees & tourists~~

~~Fed Center Site~~

~~no regular service~~

~~→ Route 16059 for commuter~~
~~service only morning & afternoon~~

~~Route 75 for Glendale & Garrison~~
~~to CBD~~

FIS Corrective Summary

⑧

RTD (Cont'd)

~~Fed Center~~

~~Route 16 will go to 30 minute frequency,
will connect w/Route 84 (Golden to
Denver (DD))~~

~~Route 59 will have added busser but
remain more & afternoon~~

~~Route 75 extended w/ station at
Denver and Union~~

~~FAP by 1975~~

~~Long Term~~

~~PRT & more busser~~

~~PRT~~

~~- E Colfax & Col. Boulevard, then~~

~~transfer to busser (high
frequency)~~

~~Park Hill easily accessible~~

~~Fed Center site served directly
by PRT w/ station via 6th Ave
& Union~~

~~Timing 1975-1983~~

~~No negative environmental comments
relating to transit regarding either
site.~~

~~Total traffic via two sites~~

Import & surrounding area

- property values
- future land use
- neighbor stability

Discuss
in alternative
section

~~There is why not continue to use
new & mint
- more selected use~~

In Import
section
oh
back to P

~~Words re reviewing list of relevant
Historic places~~

~~Tourist Secondary~~ - re to other
- Architecture
- last September

1972 OBERS PROJECTIONS

Regional Economic Activity in the U.S.

Projection of economic activity for the nation

Population, personal income, employment
earnings of persons and output.

Projections of land use by broad categories

from 1980 to 2020 by decade

BEA - Bureau of Economic Analysis
Area 748 Denver, Colorado

Economic Area 148

Total US Population 359,000,000

Table 1 Population, Employment, Personal Income, and
Earnings by Industry, Historical and Projected

<u>2020</u>	<u>1950</u>	<u>1962</u>	<u>1968</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
Population, Midyear 3,489,940	838,406	1,242,547	1,465,381	1,837,300	2,208,500	2,576,100	3,007,800
Per Capita Income 13,862 (1967 \$)	2,302	2,798	3,278	4,692	6,005	8,079	10,604
.97 Relative U.S.: 1.00	1.11	1.08	.99	.98	.97	.97	.97
Total Personal Income 1,929,900 1967 \$							
.40 Employment/Population Ratio	.39	.39		.40	.39	.40	.40
26,272 Earnings per Worker 1967 \$	4,751	5,827		9,446	12,165	15,737	20,282
.99 Relative	1.06	1.01		1.01	1.00	1.00	.99
1,000 1967 \$							
48,379,800 Total Personal Income	1,929,900	3,616,807		8,621,200	13,261,300	20,812,700	31,884,000
6,434,700 Manufacturing	235,307	550,759	673,123	1,201,000	1,808,800	2,794,100	4,245,400
1,664,400 Fabricated metal & ordnance	16,816	171,768	128,591	255,100	410,400	669,300	1,062,100

Economic Area 148 Table 2. Population & Employment by Industry

<u>2020</u>	<u>1950</u>	<u>1960</u>	<u>1966</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
1,412,100 Total Employment	325,283	452,293	542,711	727,000	858,300	1,030,700	1,214,800
94,700 Contract Construction	26,871	32,492	37,558	49,400	58,400	70,100	82,100
251,500 Manufacturing	42,497	77,442	94,192	126,300	150,400	181,500	214,500
53,800 Fabricated metals and stone	2,021	15,595	12,800	20,300	26,400	34,500	43,500
100,300 Civilian Government	18,588	30,709	38,520	54,200	62,700	74,400	86,800

Colorado Table 1

Population, Mid Year	1950	1962	1968	1980	1990	2000	2020
	1,325,000	1,899,000	2,124,000	2,582,000	3,028,000	3,473,000	4,580,000
Per Capita Income (1967\$)	2,051	2,622	3,101	4,582	5,938	8,037	13,972
Relative	.99	1.02	.94	.96	.96	.97	.98
Total Employment	492,075			981,100	1,139,300	1,384,600	1,811,500
Employment/ of population Ratio	.37			.38	.38	.39	.40

Table 2 Indexes of Production for Selected Industries
(1969 equals 100)

Manufacturing	100	164	248	385	892
Fabricated metals & structures	100	187	311	521	1342

Interim Report

Regional Growth 1971 - 2000
January, 1972

Regional Transportation District

Projections in the form of a Trend Growth Model

Study Area

- Denver
- Wanglan
- Arapahoe
- Adams
- Weld
- Boulder
- Jefferson

Counties

Population

1900	216, 000
1940	552, 000
1950	721, 000
1960	1, 054, 000
1970	1, 408, 000
1970-1980	2.18% average annual
1980	1, 715, 000
2.27%	
1990	2, 105, 000
2.16%	
2000	2, 560, 000

Employment ~~percentage~~ ^{Growth rate} (compared to general employment increase)

up { Finance, insurance, real estate
Service
Government

Peru

Government

Even } Construction
 } whole & part

Whole scale 2 netant

Down { manufacturing
Transportation, Communication & Utilities

Transportation, Consumption and Utilization

110, on to 125, on ^{affluent} ~~the~~ housing with
required by 2000.

$\frac{1}{2}$ single family units

Water Capacity/Demand (acre ft)

157 v

2010

Cayn

Perman

Cen

General

Indane mountain

507, 000

300, 500

769, 620

559, over

Easter
Hope

193,100

146, 000

321, 800

223 800

15
101
26
27
31
54

254

2 Mile Circle

~~32
8
6
4
2

52~~

WB

32
6
3
1
1
1
4

48

11%

10 17 1/2 Circle

245
6
3
3
3
5
1
2
1
1
3
4
3
7
4
8
1
3
6
9
10
3

5 17 1/2 Circle

~~158
8
11
15
17
35
3
4
4
6~~

WB

158
4
3
2
3
6
3
4
6
9
7

207 48%

339 - 78%

Code

Real
Green
Purple
Orange

\$5 \$7000
\$9 \$9000
\$10, \$10,000
\$11, \$11,000

Per year
Per year
Per year
Per year

Total No Employees Data - Nov 1971

13	19
18	2
19	3
16	16
1	5
6	1
17	5
14	1
31	10
2	4
24	8
7	<u>74</u>
13	360
20	<u>434</u>
3	
5	
3	
25	
46	
3	
4	
9	
13	
18	
11	
2	
14	
3	
<u>360</u>	

~~Within 2 Mile Circle~~

~~32 WB~~

~~Within 5 Mile Circle~~

~~32~~

~~46~~

~~28~~

~~37~~

~~15~~

~~158~~

36%

~~Within 10 Mile Circle~~

~~158~~

~~17~~

~~23~~

~~21~~

~~19~~

~~7~~

245



DEPARTMENT OF THE TREASURY
OFFICE OF THE GENERAL COUNSEL
WASHINGTON, D.C. 20220

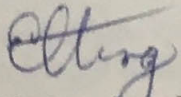
March 28, 1974

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Frank:

In looking over some material that crossed my desk, I found a promotion copy of the Environmental Health Letter for March 15 on page 7 of which there appears the material enclosed in photocopy. It seems to me that it probably would be desirable if you obtained a copy of the report, if you don't already have one, since it might be pertinent to the formulation of the final text of the Environmental Impact Statement.

Sincerely,


Elting Arnold

Enclosure

nonferrous manufacturing, timber, seafood, fertilizer, leather, soaps and detergents, grain milling, petroleum, organic chemicals manufacturing, dairy, pulp and paper, builders paper, iron and steel, textiles, fruits and vegetables and cane sugar.

PEABODY GALION GETS \$11 MILLION IN WATER POLLUTION CONTRACTORS:

Peabody Galion Corp. has received four major water treatment contracts totaling \$11 million. They were awarded to units of Peabody Petersen, the construction and installation arm of the environmental management company.

Fall River, Mass., presented a \$3.9 million order to install a new municipal water treatment plant; the Metropolitan District of Commission of Everett, Mass., placed a \$3.9 million contract to build a sewage and wastewater pumping station at the Mystic River Dam; Tampa, Fla., awarded an additional \$2.8 million to expand the Hillsborough County water treatment plant; Hobart, N.Y., awarded a \$358,000 contract to design, build and install a full packaged sewage treatment plant for the city.

TRANSPORTATION CONTINUES AS TOP AIR POLLUTION SOURCE IN COLORADO:

Transportation continues to be the major source of air pollution in Colorado, according to the 1973 annual report of the State Air Pollution Control Commission.

The other major visibility reducing pollutants come from process loss, fuel and power generation and solid waste disposal. The Commission outlined three major goals:

- * Motor vehicle emission control and the prevention of air pollution through transportation and land use planning.
- * Stationary air pollution source control, including pollution resulting from development.
- * Development of a preventive control system based on adequate source location and control in addition to policing sources once they are built.

Additional stationary source control is anticipated under a regulation, adopted recently by the Commission, to control hydrocarbon vapor emissions from stationary sources such as refineries, gasoline transfer and bulk storage facilities, users of organic solvents, manufacturers of paints and dry cleaning establishments.

For the Denver area alone, said the report, this means control of 10,700 tons of emissions per year, a figure representing a significant portion of the necessary hydrocarbon vapor emission reduction needed to meet the Federal ambient air quality standards.

During 1974 the Commission anticipates placing a strong emphasis on vehicle emission controls.

EPA REVERSES ITSELF, KEEPS MICHIGAN LAB OPEN:

EPA's water quality lab in Grosse Ile, Mich., will remain open following the agency's reversal of a decision to close it, thanks to pressure exerted by Rep. John Dingell (D-Mich.), who represents the district including Grosse Ile.

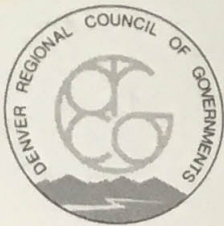
Many of the 15 employees there were scheduled to be transferred to the Chicago regional office of EPA. Others would be sent to a proposed combined EPA branch office in Cleveland.

EPA Administrator Russell Train notified Dingell Feb. 15 of the agency's reversal of its previous decision. According to Dingell, Train indicated the staff at Grosse Ile might be increased to meet water quality needs envisioned in the joint U.S.-Canada agreement.

TOTAL WATER MANAGEMENT PLAN BEING DRAWN UP FOR FLORIDA REGION:

Alternative methods for total water management, to meet the long-term water supply and ecosystem protection requirements of one of the fastest growing regions in Florida, are being formulated by consulting ground water specialists Geraghty & Miller, Inc., of Port Washington, N.Y., and Tampa, Fla.

The \$265,000 project, contracted for by the South West Florida Water Management District, is being managed by hydro-geologists James M. Geraghty and Nathaniel M. Perlmutter. Environmental engineers Quirk, Lawler & Matusky of Tappan, N.Y., will investigate the existing ecosystem as a baseline for evalua-



DENVER REGIONAL COUNCIL OF GOVERNMENTS

1776 SOUTH JACKSON STREET - SUITE 200 • DENVER, COLORADO 80210 • 758-5166

RECEIVED

"NOTICE OF PUBLIC HEARING"

JAN 23 1974

BEFORE THE

OFFICE OF
SUPERINTENDENT
U. S. MINT AT DENVER

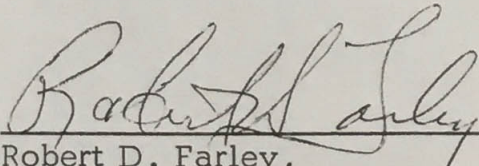
DENVER REGIONAL COUNCIL OF GOVERNMENTS

On order of the Denver Regional Council of Governments by motion on Wednesday, December 19, 1973, NOTICE is hereby given that a Public Hearing will be held at 7:30 P.M. on Wednesday, February 20, 1974, in the Conference Room of the Denver Regional Council of Governments, 1776 South Jackson Street, Suite 200, Denver, Colorado 80210, on a proposed Water Quality Management Plan prepared for the Council of Governments by a firm of consulting engineers. Copies of the proposed Water Quality Management Plan are available for public inspection at the office of the Denver Regional Council of Governments at 1776 South Jackson Street, Suite 200, Denver, Colorado, and in the Sociology & Documents Section of the Denver Public Library (Main).

The Water Quality Management Plan has been under preparation for nearly two years. The Plan essentially recommends an eight plant configuration for the year 2000 Wastewater System within the metropolitan area. That "staged" Plan utilizes several existing wastewater treatment facilities and lift stations as "interim" facilities, and as a basis for a year 1985 Regional Wastewater System.

Any interested party shall have an opportunity to present their views or arguments together with substantiating data in person or by counsel at said public hearing by requesting a scheduled time for presentation from the Council of Governments at 1776 South Jackson Street, Denver, Colorado 80210, prior to the time of the hearing or by request to the presiding officer at the Hearing Board or at the time of the hearing.

Date: January 18, 1974


Robert D. Farley,
Executive Director, Denver Regional
Council of Governments

Orig: Frank Plean
Copy: Bldg. & Mech. Div.

COUNCIL OFFICERS

MILTON E. SENTI, Chairman ROBERT G. HOWARD, Vice-Chairman RICHARD O'GRADY, Secretary-Treasurer ROBERT D. FARLEY, Executive Director

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*Chairman

**Vice-Chairman

**DENVER REGIONAL
COUNCIL OF GOVERNMENTS**

1776 SOUTH JACKSON ST. • SUITE 200
DENVER, COLORADO • 80210

**BULK RATE
U.S. POSTAGE**

PAID

Denver, Colo.
Permit No. 1522

90
UNITED STATES MINT
MRS BETTY HIGBY
320 W COLFAX
DENVER COLO 80204

Robert E. Farley
Robert E. Farley,
Executive Director, Denver Regional
Council of Governments

July 1, 1973

General Design Criteria
Prepared by Bureau of the Mint

1. Design Concept

It is the intent of the United States Government that the new Denver Mint will be designed, constructed, and equipped to provide the most modern coin manufacturing plant in existence at the time of its completion, using proved equipment, technology and industrial processes. It is not intended to advance beyond the proved state-of-the-art in equipping the various systems and subsystems in the facility.

Also, it is the intent of the United States Government that the new Mint be designed and constructed to provide structures and a surrounding setting that will reflect the importance and dignity of the special function of the United States Government to be performed in the facility, and to be in harmony with and to enhance the modern Western character of the metropolitan Denver area.

In the process of planning for the new Denver Mint, the Bureau of the Mint has prepared detailed facility criteria and tentative plans for the industrial process layout, including space determinations and equipment selections for the various functional operations. These criteria and tentative process layouts are attached. These layouts, material flow charts and specific equipment/function criteria were prepared on the concept of providing an initial production capacity of 7.7 billion coins per year on a two-shifts per day basis for nearly all process operations, and on the concept of constructing both a strip production facility and a coining facility. As the strip production facility is in a deferred status at this time, and as the initial production capacity is now 10.5 billion coins per year on a three-shifts per day basis, this material is not completely applicable to the current design requirement. However, this material is being furnished for general information and guidance purposes and for use in general planning to accommodate the possibility of construction of a strip production facility on the site at a later date. It is intended the Architect-Engineer will review the criteria and propose alternatives or amendments as appropriate. The tentative layouts and equipment selections are not restrictive. On the contrary, the Architect-Engineer is expected to analyze the entire spectrum of operations and functions to be performed and to use his judgment, expertise and analysis in developing the design of the new Denver Mint.

2.

2. Mission

Based on three-shift operation of all processes, the Mint is to be constructed and equipped to provide for an initial production capacity of 10.5 billion domestic coins per year, ranging in denomination from 1¢ through \$1. When fully equipped, and based on three-shift operation of all processes, the Mint is to have a production capacity of 15.7 billion coins per year.

The Mint also is to be constructed and equipped to provide for production, packaging and distribution of 25 million proof coins and medals per year.

3. Production Parameters (Annual Basis)

a. Domestic Coin Production

<u>Denomination</u>	<u>Quantity</u>
1¢	9,280,000,000
5¢	620,000,000
10¢	220,000,000
25¢	110,000,000
50¢	55,000,000
\$1	55,000,000
Other coins	<u>160,000,000</u>
	10,500,000,000

b. Proof Coin and Medal Production

25,000,000 pieces total.

c. Foreign Coin Production

Although foreign coins will be produced, no capacity identified to such production will be included in the Denver Mint. Excess capacity available from planned domestic and proof coins programs will be utilized for foreign coin programs as can be made available.

3.

d. Shift Basis

For determining initial capacity requirements, planned shift basis will be 3 shifts per day, 5 days per week, 240 days per year.

e. Melting and Casting, and Strip Production

This function (strip production facility) is not included in the project except for the planning concept for the new Mint at this time. It may be added later. See Paragraph 5.d below.

f. Strip Preparation

Based on receiving coils of strip approximately 32" x .35", the intermediate and finishing rolling mills, slitter/trimmer and other strip preparation equipment shall have the capacity for concurrent annual production of strip required for:

13,920,000,000	bronze 1¢ coins
2,250,000,000	cupro-nickel 5¢ coins
9,000,000	pounds of cupro-nickel strip for Philadelphia

g. Blank Preparation

This function shall have the capacity to support the processing of an adequate number of blanks to produce the coinage listed in Paragraphs 3.a. and b. above.

h. Coining, Counting and Bagging

Production capacity shall be that listed in Paragraphs 3.a. and b. above.

i. Strip Bonding

Coinage strip bonding operation will not be included in the Denver Mint. All cupro-nickel/copper strip for 10¢, 25¢, 50¢ and \$1 coins will be provided by the Philadelphia Mint or others. Bonded coinage strip of other alloys will be purchased.

The design for the new Mint will include consideration of future addition of a strip bonding facility, if and when the need arises.

4.

4. General Planning Factors and Requirements

- a. Separate buildings, or separate portions of buildings, will be provided for:
 - (1) Strip preparation, blank preparation, coining and coin storage
 - (2) Administrative offices and support functions
 - (3) Proof coining operations
- b. Isolate and provide noise depressant areas for such operations as slitting/trimming, blank preparation, and coining.
- c. Production concept to be single story sequential flow with minimum vertical handling of production materials, unless site specifics and engineering economic analysis dictate otherwise.
- d. The entire facility will be planned and designed to provide for maximum reasonable future expansion. Where appropriate, foundations, columns, beams and building systems (electrical, mechanical, process liquids, etc.) will be designed to meet expansion requirements.
- e. Vehicle parking area for employees and visitors will be separate. Spaces for 250 employee automobiles, 150 visitor automobiles and 10 visitor busses will be provided.
- f. Usable production equipment and machinery in good enough operating condition to have a remaining life expectancy of at least five years will be relocated from the present Denver Mint.
- g. Need for operating and maintenance spares on major items of production equipment will be determined prior to bid solicitation, and an adequate number of such spares will be procured concurrently with the equipment. Production equipment procurement documents shall require the furnishing of operation and maintenance manuals, wiring diagrams, etc. and operation and maintenance training.
- h. Storage requirements for metal strip will be equivalent to 30 days production at the 15.7 billion coins per year rate.

5.

- i. Storage requirements for finished coins will be equivalent to 45 days production at the 15.7 billion coins per year rate.
- j. Adequate surge storage space will be provided between various operations to allow for interrupted production due to equipment failures, maintenance problems and other factors.
- k. The production process will be designed and laid out to provide easy access for maintenance of equipment.
- l. Administrative/support area layouts will be based on movable partitions, except where fixed masonry partitions are required, or are more feasible in such areas as stairwells, elevator cores and bathrooms.
- m. Standby emergency electric power will be provided for essential needs such as security monitoring systems, blank annealing lines, sump pumps, personnel evacuation lighting, etc.
- n. Provide a security system for the facility with the objective of providing adequate security at reasonable equipment and personnel costs. The layout and arrangement of work areas, lunch rooms, bathrooms and locker rooms should be such as to allow for limitation of employee mobility within the facility. Sensitive areas should be isolated and provided with physical restraints so that a restrictive access system can be readily enforced.
- o. Provide a complete telephone system for the facility consisting of empty conduits, telephone terminal cabinets, wall outlets and telephone equipment room.
- p. Provide an intercommunication system for point-to-point communication between specific operational activities, based on the requirements of the industrial process system. Design an associated paging system for selective and overall paging throughout the Mint.
- q. Provide a fire protection system for the entire facility.

6.

- r. Prepare calculations and economic studies supporting the recommendations for electrical aspects of the facility such as the voltage level at which the Government should purchase power, the motor starting methods (across the line vs reduced voltage), the short circuit current calculations for determining the equipment interrupting capacities required, the degree of ground fault protection, AC to DC conversion method, and copper vs aluminum conductors.
- s. Based on using the South Platte River site for the new Mint, special attention to the potential flooding will be required in the detailed design. It is the intent of the Government that surface elevations beneath all major structures will be at least three feet above the water elevations, as predicted by the Corps of Engineers during a "Standard Project Flood," and that these structures will be "floodproofed" up to three feet above surface elevations.
- t. The design of the new Denver Mint shall meet all local code, zoning and design requirements, requirements as to the use of materials, and the provision of employee facilities. If a local approval of the exterior massing and fenestration of the facility is required by law, ordinance or regulation, the Architect-Engineer shall assist the Contracting Officer's representative in obtaining this approval.
- u. The new Denver Mint shall be designed and the construction documents prepared in compliance with the letter and spirit of Public Law 91-190 (the National Environmental Policy Act of 1969) and Executive Orders 11507 and 11514, and in accordance with the Final Environmental Impact Statement for this facility dated February 2, 1973.
- v. The new Denver Mint shall be designed and the construction documents prepared to comply with the letter and spirit of the Occupational Safety and Health Act of 1970 (Public Law 91-596). In this regard, solution of external and internal noise pollution problems will require particular attention.

7.

- w. The new Denver Mint shall be designed and the construction documents prepared to comply with the letter and spirit of local, State and Federal laws and regulations pertaining to the prevention of air and water pollution and solid wastes disposal. Executive Order 11507, dated February 4, 1970, is applicable. It is intended that the new Denver Mint will be equipped with the most modern and efficient pollution measurement, prevention and control systems and devices available, so that the plant will serve as a model in the field of pollution measurement and prevention.
- x. Process lines and utilities shall be designed for serviceability and good accessibility. All process lines and utilities shall be color coded for easy identification.
- y. Provide the necessary railraod siding(s) to service the facility.

5. Specific Functions/Space Requirements

The following specific functions/space requirements are to be included in the new Denver Mint:

a. Basic Functions

Strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, blank upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

b. Direct Support Functions

Assay and quality control, die production from the Hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage, strip, coins, supplies, and scrap) and warehousing.

c. Administrative Support Functions

Mint Staff (Superintendent and Deputy Superintendent, Accounting and ADP, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

8.

d. Planned Future Functions

At this time the new Mint is to be designed on the concept that the metal strip required for coinage will be procured from commercial or other outside sources. However, for planning and design purposes with regard to such factors as site layouts, utilities, access, parking areas, roads, etc., it is to be assumed that a coinage strip production facility, utilizing virgin metal and scrap returns, will be constructed on the site at some future date. Planning for this future addition is to be based on New Mint Criteria Plate No. 1, Strip Production Facility, dated June 1972, and Specific Equipment/Function Criteria, Item Numbers 1 through 15, dated July 1, 1973.

6. Design and Construction Schedule

The planned time schedule for these Architect-Engineer services is shown on Enclosure 1, dated September, 1973.

7. Coinage Data

See Enclosure II Sheets C-1-(a) through C-1-(h) for established data on coinage alloys, dimensions, weights, production, metals, etc.

8. Design Capacities and Material Flow Charts

The design capacities and material flow in tons per hour or per shift for bronze, cupro-nickle and clad coinage is shown on Enclosure III Sheet 1 through 3 of 3. These plates are to be used as preliminary planning data only and are not to be considered firm requirements.

9. Specific Equipment/Function Criteria

Enclosure IV dated July 1, 1973 consists of 36 equipment/function items. This data is to be used as preliminary planning information only and is not to be considered firm requirements. Note that Items 1 through 15 apply to the presently deferred Strip Production Facility.

9.

10. Preliminary Space Survey

Enclosure V consists of five drawings, Plates 1, 2, 3 (Pages 1 and 2 of 2), and 4. These plates are to be used as preliminary space surveys only and are not to be considered firm facilities or equipment layout requirements.

Fy 75

EEV

Employee

Money

Payroll (Direct) - 483

\$ 5,541

Revid -

49

594

Less Retirement,
Inc, Income Tax

532

\$ 6,535

Supplier \$ 531,000
Revid \$ 177'
668,000

TT FY 75 For 433

Total Payroll (Print) \$ 5,326,00

less retirement, Inc, Income Tax.

Payroll Reimbursed

Work Paper File

Comments on Davis S. Platte Title

Dist.

Edward W. Brooks, Asst. Director of
Administrative Programs

Frank H. MacDonald, Deputy Director, Bureau of the Mint

Draft Environmental Impact Statement, New United States Mint, Denver,
Colorado

1. Attached are copies of subject draft statement which has been re-written to incorporate the comments and suggestions of Messrs. Slitor, Arnold and others on the previous draft.
2. I am of the opinion that this draft statement covers all the substantive matters of the proposed project in clear detail and with a sufficient degree of quantification. Therefore, and in consideration of the status of our project planning and the required 45-day period for other agencies and public review and comments, I recommend that this draft be processed promptly to the Council on Environmental Quality, the other Federal Agencies and the public. Upon receipt of clearance from you or Mr. Slitor, our Project Manager will forward copies to the state and local agencies and to the public in the Denver area.
3. Please note that the date of submittal to the CEQ and the public must be entered in paragraph 6 of the summary sheet.
4. Proposed distribution of the attached copies is:

<u>No. Copies</u>	<u>Agency</u>
25	NTIS
10	CEQ
3	EPA
3	Dept. Agriculture
2	Dept. Commerce
3	Corps of Engineers, DOD
3	HEW
3	HUD
8	Dept. Interior
3	Dept. Transportation
2	Office of Economic Opportunity
2	Mr. Slitor
2	Office, Admin. Programs

Frank H. MacDonald, Deputy Director of the Mint

September 21, 1972

Frank W. Rhea, Facilities Project Manager

Comments on Draft Environmental Impact Statement

1. Mr. Elting Arnold, by letter of September 18, 1972, requested a copy of each comment received on the New Denver Mint Environmental Impact Statement. Enclosed are two sets of such comments received to date, one set for Mr. Arnold and one set for you. Copies of other comments will be forwarded as received. Note that no one yet has raised any real environmental objection to constructing the Mint on the South Platte site.
2. Several important agencies have not been heard from yet. Yesterday I contacted the Denver Regional Council of Governments and the Denver Regional Office of EPA - both agencies stated that their comments would be dispatched September 22 and that they have no substantive objections - only minor editorial matters.

Enclosures

August 23, 1972

Mr. Jack S. Shapiro
Chairman, KWAL Paints, Inc.
Post Office Box 5231
800 Water Street
Denver, Colorado 80217

Dear Mr. Shapiro:

Enclosed is the DRAFT Environmental Impact
Statement Mr. Fredlund indicated we should send
to you.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Administrator
Environmental Protection Agency
401 M Street Southwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to your Denver Regional Office.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

State Conservationist
U. S. Soil Conservation Service
Diamond Hill Office Complex, Room 307
2490 West 26th Avenue
Denver, Colorado 80211

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Agriculture in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Secretary of Agriculture
Independence Avenue
12th & 14th Southwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Forest Service and the Soil Conservation Service, Rocky Mountain Region.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

Enclosure

2

August 4, 1972

Regional Forester
U. S. Forest Service
Building 85
Denver Federal Center
Sixth Avenue & Kipling Street
Denver, Colorado 80225

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Agriculture in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

Enclosure

(2)

August 4, 1972

Secretary of Commerce
14th - E & Constitution Avenue Northwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Economic Development Administration Office in Denver.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

District Engineer
Omaha District, Corps of Engineers
7410 U. S. Post Office and Courthouse
Omaha, Nebraska 68102

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Office of the Chief of Engineers, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Director of Civil Works
Office of the Chief of Engineers
Forrestal Building
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Omaha District Engineer.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Regional Administrator
Department of Housing & Urban
Development
Federal Building - Courthouse
1961 Stout Street
Denver, Colorado 80202

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Housing and Urban Development in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Secretary of Housing & Urban
Development
451 Seventh Southwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Office of your Denver Regional Director.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Hand Woodward

State Supervisor
Division of Wildlife Services
1033 Broadway
Denver, Colorado

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Interior, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

*Dir of
Wildlife*

Mr. Harry Woodward
Director
State of Colorado Division of Game, Fish
& Parks
6060 Broadway
Denver, Colorado 80221

Dear Mr. Woodward:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2



THE DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

OFFICE OF
DIRECTOR OF THE MINT

August 4, 1972

*Dept. of the Interior
Missouri Basin Region*

Director of Environmental Geology
U. S. Geological Survey
Building 25, Denver Federal Center
West Sixth Avenue & Kipling Street
Denver, Colorado 80225

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Interior, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

7



Keep Freedom in Your Future With U.S. Savings Bonds .

August 4, 1972

Secretary of the Interior
C Street
18th & 19th Northwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Denver Offices of the Bureau of Mines, Bureau of Reclamation, Bureau of Sport Fisheries and Wildlife, Geological Survey and the National Park Service.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Mr. William H. Baugh
Regional Federal Highway Administrator
Building 40, Denver Federal Center
West Sixth Avenue & Kipling Street
Denver, Colorado 80225

Dear Mr. Baugh:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Transportation, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Mr. Samuel R. Martinez
Regional Director
Office of Economic Opportunity
Federal Building - Courthouse
Room 12037A
1961 Stout Street
Denver, Colorado 80202

Dear Mr. Martinez:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Office of Economic Opportunity, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

1

August 4, 1972

Mr. William C. Hacker
Director, Colorado State Division of
Commerce & Development
600 State Capitol Annex
Denver, Colorado 80203

Dear Mr. Hacker:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

1

August 4, 1972

Secretary of Health Education & Welfare
330 Independence Avenue Southwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Office of your Denver Regional Director.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Regional Director
Department of Health Education & Welfare
Federal Building - Courthouse, Room 10021
1961 Stout Street
Denver, Colorado 80202

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Health Education and Welfare in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Dr. Roy L. Cleere
Executive Director
Colorado State Department of Public
Health
4210 East 11th Avenue
Denver, Colorado 80220

Dear Doctor Cleere:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Mr. Charles E. Shumate
Executive Director
Colorado Department of Highways
4201 East Arkansas Avenue
Denver, Colorado 80222

Dear Mr. Shumate:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2



OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

November 24, 1972

Mr. Stephen H. Hart
State Liaison Officer
State Historical Society
Colorado State Museum
200 - 14th Avenue
Denver, Colorado 80203

Dear Mr. Hart:

Transmitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102 (2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

It is requested that you review this Statement for any archeological, historical, architectural and cultural aspects of the proposed project and provide comments to the Bureau of the Mint at the address listed below. I would appreciate it if you could provide your comments by December 15, 1972.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosures



Keep Freedom in Your Future With U.S. Savings Bonds

August 4, 1972

Denver Regional Council of Governments
Executive Club Office Building
1776 South Jackson - Suite 200
Denver, Colorado 80210

Gentlemen:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972. I will be more than happy to participate in any discussions, meetings or public hearings that you may feel are appropriate relative to this proposed project.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

5

August 4, 1972

Mr. Harry Parrish, Jr.
Executive Director
Denver Regional Transportation ^{District} Authority
56 Steele Street
Denver, Colorado 80206

Dear Mr. Parrish:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding the project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

3

August 4, 1972

Secretary of Transportation
400 Seventh Southwest
Washington, D. C

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Denver Regional Federal Highway Administrator.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Mr. William Korbitz
Manager, Metropolitan Denver Sewage Disposal
District No. 1
3100 East 60th Avenue
Commerce City, Colorado 80022

Dear Mr. Korbitz:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Mr. L. Scott Tucker
Director, Urban Drainage & Flood
Control District
602 Lucas Building
181 East 56th Avenue
Denver, Colorado 80216

Dear Mr. Tucker:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Mr. Alan Canter
City of Denver Planning Director
1445 Cleveland Place
Room 300
Denver, Colorado 80202

Dear Mr. Canter:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Mr. Robert McWhinnie
Chief of Planning & Resource Development
Denver Board of Water Commissioners
144 West Colfax Avenue
Denver, Colorado 80202

Dear Mr. McWhinnie:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. KNEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80202

Enclosure

August 4, 1972

Dr. Beatrice Willard
President
Thorne Ecological Foundation
1405 Broadway
Boulder, Colorado 80302

Dear Doctor Willard:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Mr. Felix L. Sparks
Director
Colorado Water Conservation Board
1845 Sherman
Denver, Colorado

Dear Mr. Sparks:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Mr. Richard Brown
Director, Colorado Division of
Planning
524 Social Services Building
1575 Sherman Street
Denver, Colorado 80203

Dear Mr. Brown:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972. I will be more than happy to participate in any discussions, meetings or public hearings that you may feel are appropriate relative to this proposed project.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

5
AL

August 4, 1972

Mr. Roger Hansen
Executive Director
Rocky Mountain Center on Environment
4260 East Evans Avenue
Denver, Colorado 80222

Dear Mr. Hansen:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Mrs. Clifford Cobble
President
Colorado Federation of Women's Clubs
1726 Champa Street
Denver, Colorado 80212

Dear Mrs. Cobble:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

2

August 4, 1972

Final
February 2, 1973

Director, Denver Service Center
National Park Service
Villa Italia
Lakewood, Colorado

Dear Sir:

Submitted herewith ^{Final} ~~for your review~~ is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Interior, Washington, D. C.

✓ Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below, ~~by September 22, 1972.~~

~~Your cooperation is appreciated.~~

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Economic Development Representative
Economic Development Administration
U. S. Department of Commerce
Federal Building, Room 181
U. S. Custom House
721 - 19th Street
Denver, Colorado 80202

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Economic Development Administration Office in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

no final

August 10, 1972

Mr. Harold R. Green
Acting Regional Director
Bureau of Outdoor Recreation
P. O. Box 25387
Denver Federal Center
Denver, Colorado 80225

Dear Mr. Green:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

no find

August 4, 1972

Director
Office of Economic Opportunity
1200 - 19th Northwest
Washington, D. C.

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to your Denver Regional Director.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure





OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

August 4, 1972

Regional Director
Bureau of Reclamation
U. S. Interior Department
Building 20, Denver Federal Center
West Sixth Avenue & Kipling Street
Denver, Colorado 80225

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Interior, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



Keep Freedom in Your Future With U.S. Savings Bonds

August 4, 1972

Chief, Western Administrative Office
Bureau of Mines
U. S. Interior Department
Building 20, Denver Federal Center
West Sixth Avenue & Kipling Street
Denver, Colorado 80225

Dear Sir:

Submitted herewith for your review is a DRAFT Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Draft Statement are being submitted this date to the Department of Interior, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 4, 1972

Mr. John A. Green
Regional Administrator
Environmental Protection Agency
1860 Lincoln
Denver, Colorado 80210

Dear Mr. Green:

Submitted herewith for your review is a DRAFT
Environmental Impact Statement required by Section
102(2)(c) of the National Environmental Quality Act
of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project
should be submitted to the Bureau of the Mint at the
address listed below by September 22, 1972.

Your cooperation is appreciated.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure

August 29, 1972

Miss Penny Blackwell
National Wildlife Federation
1412 - 16th Street, N. W.
Washington, D. C.

Dear Miss Blackwell:

In response to your telephone request of today to this Department, I enclose a copy of the Draft Environmental Impact Statement concerning the Construction of the New United States Mint - Denver, Colorado, filed by this Department on August 9, 1972. If you have any questions, I shall be glad to try to answer them or to refer you to someone who might be better informed, if that seems desirable.

Sincerely yours,

(Signed) Elting Arnold

Elting Arnold
Special Assistant to the
General Counsel

Enclosure

-WORLD Magazine: issue of 9/12/72

World Environment Newsletter

PREPARED FOR WORLD MAGAZINE BY INTERNATIONAL INSTITUTE FOR ENVIRONMENTAL AFFAIRS

Global Report

Moscow—Like the United States, the Soviet Union devotes the largest share of its transportation budget to road building. About 5-billion rubles were spent on highway construction during the last five-year plan and the amount is likely to increase.

At a recent conference of Soviet transportation experts, it was estimated that 2.6-billion rubles are lost yearly because trucks average only fifteen miles per hour or so, thereby raising shipping costs. Add the premature wear and tear on vehicles and loss of agricultural produce and other freight, and the cost of bad roads can be reckoned at between 4- and 5-billion rubles.

The Soviet Union now has 806,000 miles of road compared to 3,710,299 miles in the much smaller United States, including 317,000 paved miles as against nearly 3 million in the U.S.

Anyone for Lend-Lease in highways?

Denver—In a showdown between growth and environment, citizens here voted for the environment.

The issue was a \$200-million bond authorization requested by the Denver Water Board for the expansion of the community's water system. The proposed expansion was part of a larger \$355-million plan, which included an elaborate scheme to divert water across the Continental Divide from the west slope to the east.

But money had little to do with the outcome, since voters were assured that the bond issue would not increase taxes or water bills and that new residents and new industries would foot the bill. The citizens of Denver, in a far larger turnout than was predicted, decided that, beyond the fiscal considerations involved, endless expansion was not for them.

The League of Women Voters, which led the attack on the plan, also wanted to take issue with the State Legislature's failure to impose controls on land use. Many questioned whether Coloradoans west of the Rockies, where opposition was nearly total, should have their water tapped because a few thousand residents of Denver voted to do it.

Said *The Denver Post*, which favored the bond issue: "Ten years ago such a bond issue wouldn't have attracted much attention beyond the usual pro-

nouncements about the water board's farsightedness and the need to keep pace with Denver's continuing growth.

"What was good for growth tended, in a practical sense, to be good for everybody."

Paris—The French Government is helping to finance the development of five different types of electric vehicles for urban use: a two-seater with a speed of about fifteen miles an hour and a top range of forty miles, and another with slightly higher speed but able to cover less distance without recharging; a six-passenger Renault with a speed of forty miles per hour and a range of about sixty miles; a light truck with slightly higher speed and range; and a range of heavier trucks of nine, twelve and nineteen tons.

Washington—For those in the less developed world who think that pollution control doesn't pay, the World Bank has come up with a dilly. It anticipates a 30 per cent rate of return on an \$80-million investment aimed at cleaning up the Tiete River, which flows through the city of Sao Paulo.

The stench from the river is so strong that land along its banks is almost valueless. Thus not only will pollution abatement, for which the Bank is providing just the foreign-exchange costs of \$15-million, make a large section of Sao Paulo healthier and more livable, but it will restore highly desirable land in the heart of the city.

The Tiete River project is merely one item of interest in a pamphlet that the Bank has issued describing the environmental considerations that are weighed before development projects are undertaken.

The pamphlet, "The World Environment and the World Bank," may be obtained free from the Bank's Publications Office. Address: 1818 H Street, Washington, D.C. 20433.

Bailrig, Lancaster—Many studies have been made of the disruptive changes that ensue when primitive cultures come in contact with Western civilizations. But despite the prevalence of back-to-nature communes and experiments in counter-culture, no one has systematically and professionally studied the reverse process.

The Program of Peace and Conflict Research at the University of Lancaster

plans to establish "a self-organizing ecologically viable community" in an isolated part of southern Chile. The purpose will be to study how people from a highly technological, mass-consumption civilization will develop compatible means of support and social organization when transported to a wholly new and almost unoccupied ecosystem.

The project grows out of a broader interest in the relationship between social organization and ecological conditions. It assumes that "in order to survive, societies of the future need to be based on ecological not technical science."

The experiment envisages a community of about 500 people from many countries and with many skills. Studies will be made periodically by external researchers in a dozen disciplines; they will focus on stress and deculturation, value changes, the development of alternative conflict-resolution procedures, the socialization of children, the development of intermediate technologies and the emergence of behavior patterns and social organizations specifically related to the ecosystem.

Grozny, U.S.S.R.—A struggle between irrigation engineers and fisheries authorities is being played out here with the same likely outcome as occurred on the Volga several years ago.

After the construction of nine dams on the Volga, the catch of migratory fish decreased by 116.7 thousand metric tons. In 1968 no Volga salmon arrived at the spawning grounds because the Saratov Dam was completed before the addition of a passage for fish.

Here on the Terek River, which also flows into the Caspian Sea, a dam has denied salmon, pike, and perch the spawning grounds on the upper reaches of the river and its tributaries. In a bitterly sarcastic article, an *Izvestia* correspondent accused the local Ministry of Land Reclamation and Water Works of continuing construction of an earthen dam which it "had absolute no right to begin."

(Continued on next page)

No Earth Patriots

Margaret Mead, speaking in Stockholm: "No one except Barbara Ward would die for the United Nations."

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

ROCKY MOUNTAIN REGION
BUILDING 85, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO

1940

September 26, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

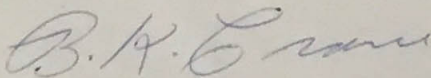
Dear Mr. Rhea:

Thank you for the opportunity to review the Draft Environmental Impact Statement for the proposed construction of the new United States Mint - Denver, Colorado.

I recommend that the visual impacts from important vantage points be evaluated and considered in the plans. This might involve coordinated planning between this area and the South Platte Development Project to create visual harmony.

The proximity of Interstate 25 needs to be considered from the standpoint of noise and chemical pollution potential. I suggest Department of Agriculture Bulletin #246 "Trees and Shrubs for Noise Abatement," which is enclosed.

Sincerely,



for, W. J. LUCAS
Regional Forester

Enclosure



Research Bulletin

246

July 1971

Trees and Shrubs For Noise Abatement

by

David I. Cook

David F. Van Haverbeke

**The Forest Service
U.S. Department of Agriculture
Cooperating With
University of Nebraska College of Agriculture
The Agricultural Experiment Station
E. F. Frolik, Dean; H. W. Ottoson, Director**

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Issued July 1971, 4,200

FOREWORD

The study, "Trees and Shrubs for Noise Abatement," was a joint effort by the University of Nebraska and the U.S. Forest Service. The principal objective was to determine effective means for reducing traffic noise levels by the use of trees and shrubs, wherever intrusive noise is a problem.

Personnel serving in the project were Professor David I. Cook, Department of Engineering Mechanics, principal investigator; Dr. David F. Van Haverbeke, Research Forester, Rocky Mountain Forest and Range Experiment Station, USDA; and Mr. Thomas L. Young, student of Architecture and Community Planning, University of Nebraska. Data were analyzed at the University of Nebraska Computer Center under the direction of Mr. Richard L. Kiger.

Credit is due Mr. Lloyd Hayes, Assistant Director of the Rocky Mountain Forest and Range Experiment Station (retired) for efforts in getting the project underway; Ralph A. Read, Project Leader, Rocky Mountain Forest and Range Experiment Station, for assisting in preliminary studies and reviewing the manuscript; Dr. John C. Barber, Chief, Branch of Forest Genetics, Division of Timber Management Research, U.S. Forest Service, for negotiating the supporting grant by the Forest Service to the University of Nebraska, and Dean John R. Davis for assisting in the final negotiations and in the preparation of the original budget request.

Credit is also due Dr. Gordon Banerian and his staff, Office of Noise Abatement, Department of Transportation, for reviewing the report.

The Rocky Mountain Forest and Range Experiment Station is headquartered in Fort Collins in cooperation with Colorado State University. Dr. Van Haverbeke is stationed in Lincoln in cooperation with the University of Nebraska.

SUMMARY

The potential value of trees and shrubs, as determined from a study of a variety of shelterbelts and urban screen plantings in southeastern Nebraska, appears to be very good. Reductions of sound levels (attenuations) in the order of 5 to 8 decibels are common, and attenuations of 10 decibels (approximately half as loud) are not unusual for wide belts of tall, dense trees.

When the difference in level is based on a comparison of tree-shrub-grass combinations with hard surfaces, the worth of trees and shrubs is even more evident and attenuations of 8 to 12 decibels are common. Occasional reductions of 15 decibels or greater ($\frac{1}{3}$ as loud)

have been noted but these are attributed to exceptionally advantageous temporary atmospheric conditions.

The relative effects of tree species, height and belt width are discussed in some detail. In general, wide belts of tall trees are most effective. Species do not appear to differ greatly in their ability to reduce noise levels, provided deciduous varieties are in full leaf. Thus, evergreens are desirable for year-round noise screening.

Relative placement of noise screens between sound source and protected area is of great importance; a screen placed relatively close to a noise source is more effective than one placed close to an area to be protected.

Urban residential property was effectively screened from passenger car noise with a single row of dense shrubs backed by a row of taller trees, totaling a depth of 20 feet. Screening for rural areas or freeways, where large trucks account for much of the noise, requires wider belts consisting of several rows of tall trees in dense plantings. Distances of 100 feet or more between noise source and the area to be protected are therefore desirable.

Later phases of the study emphasized the desirability of combining trees with softer surfaces (grass) as opposed to hard surfaces (crushed rock, gravel, pavement) in reducing noise levels.

Trees and Shrubs For Noise Abatement

By David I. Cook¹

David F. Van Haverbeke²

INTRODUCTION

Excessive noise is a form of environmental pollution. The continual increase in the community noise level during the past two decades indicates a future noise problem comparable to the current air pollution problem of our large industrial centers.

Trees and other forms of vegetation are known to have some effect on the transmission of sound but precise information on their use as noise screens is rather meager. In this study, we attempted to derive accurate, useful information for the above purpose, and to add to

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² David F. Van Haverbeke is Associate Professor of Horticulture and Forestry.

knowledge about outdoor sound propagation. Actual plantings of trees and shrubs in the form of shelterbelts and windbreaks on the Nebraska plains, and screen plantings of shrub-tree combinations within the city were studied.

Traffic noises produced by trucks, cars and city buses were recorded on magnetic tape to provide the sound source. These prerecorded sounds were played back through tree and shrub barriers and the sound level was measured behind the barriers at varying distances. This procedure was repeated at nearby locations under similar conditions, without trees, to evaluate the effectiveness of trees in reducing the noise level.

The subjective response to noise is so complicated that no single criterion has been generally accepted for evaluating the apparent loudness of all types of sounds. However, the dBA scale of the precision sound level meter, which approximates human response to loudness (See Glossary of Terms, Appendix A) has received considerable acceptance in rating broad-band noises such as from traffic. Because of its general acceptance and ease of application, the dBA scale was selected for making many of the measurements and reporting most of the results.

Results of the study are in two basic forms:

1. Curves that give the sound levels behind the tree belt at various distances from the noise source.
2. Curves that give the reduction in sound level due to the presence of trees.

Equations that predict the sound level at varying distances in terms of barrier heights and width have also been derived. These may be applied in the design of noise screens to predict the sound level at various distances from the belt of trees.

Two new areas of interest and some special tests concerning them are included in the later study phases. These areas, which were not detailed in the preliminary report (33), are the comparative effects of hard surfaces and tree-shrub-grass combinations; and in-town studies of tree-shrub combinations, and their effectiveness in reducing tire-roadway interaction noise. Relative placement of noise screens and end-distance effect have also been included, as well as the gross effect of wind on the effectiveness of trees as noise screens.

A supplementary study of the reduction of sound level within a belt of trees was conducted, for two reasons. We wanted to:

1. Compare the attenuation properties of trees with those of other media and surfaces, for longer distances than were normally available in standard-depth shelterbelts.
2. Find out how far into a belt of trees a person would need to go, before the noise level caused by a truck would be equal to the background level caused by the movement of air through the leaves in a

moderate 15 m.p.h. wind. This could be a consideration for a camp-site location.

In this study, the noise source was placed 50 feet from the trees at the end of the belt. The microphone was moved lengthwise into the belt for distances up to 400 feet.

Observations and conclusions of the report discuss physical phenomena related to the study, and practical aspects in the use of trees and shrubs as noise screens. Specific recommendations for the use of belts of trees as noise screens and the results which could be expected are also included.

To help the reader make practical use of the material contained in this report, several hypothetical design problems have been worked out (Appendix B).

Review of Literature

Previous studies, cited in Appendix D, have sometimes been made with a filtered noise source, projecting sound in selected band widths or at a fixed frequency.

One study, "Jungle Acoustics" (13), was made to determine the direction of a sound source from a receiver, in an effort to locate the source of a rifle shot in the jungle. Also, it was desired to determine the reduction of sound level with distance. This was reported as being related to the difficulty of penetration into the jungle and the distance a foreign object might be seen. Greatest reduction was obtained with tall grass and very leafy vegetation.

A second study, "Sound Propagation in Homogeneous Deciduous and Evergreen Woods" (19), indicated excess attenuation of 7 dB per 100 feet at frequencies below 1000 Hz. A slight increase of sound level at three specific frequencies, suggesting resonant absorption by tree branches, was also observed.

A third study, "Survey of the Traffic Noise Problem" (31), states that a 200-foot band of woods can be quite useful in the attenuation of noise.

A fourth study, "The Influence of the Forest on the Health of Man" (32), indicates that the sound absorption of trees increases with frequency of sound waves. The study showed that a park 50 meters wide can reduce noise by 20 to 30 dB (below its source level).

A fifth study, "Propagation of Sound over Ground" (18), showed that excess attenuation was due to the refractive effects of temperature, wind gradients and ground cover and that upwind attenuation was found to exceed downwind attenuation by 25 to 30 decibels.

A sixth study, "Effect of Highway Landscape Development on Nearby Property" (20), indicated that sound levels below 68 dBA were "not disturbing" to most persons and that truck noise was the most severe highway disturbance.

Other references found in Appendix D have a lesser bearing on the present study, although they provide a background of material useful to noise studies in general.

CHAPTER I—EQUIPMENT AND FACILITIES

Selection of Test Sites

Fourteen tree belts of varying widths, heights and tree species, located within 100 miles northwest of Lincoln, Neb., were selected for the research. Many had been planted during the "Dust Bowl" days of the late 1930s and early 1940s under the Prairie States Forestry Project directed by the U.S. Forest Service. These plantings were established to protect crops, livestock, wildlife and man from the strong winds so prevalent on the Plains and to reduce the loss of topsoil by wind erosion. Relatively quiet locations, removed from major highways, were chosen so that traffic and other extraneous noises would not interfere with accurately measured broadcast sounds.

Of the 14 original belts, 7 major belts were selected for intensive study. These were considered representative of a wide range of sizes and tree species. Photographs and descriptions of these belts appear in Chapter III, where results of the majority of the tests are reported. The remaining seven belts were used for special purposes and are referred to elsewhere in the report. A limited number of in-town sites were also selected, to study the effect of screen plantings along major arterial streets.

Development of the Noise Source

Three major types of noise were selected from among several different noises initially considered. The selected types were:

1. Highway Truck Noise.
2. Arterial Passenger Car Noise.
3. Bus Stop Noise.

Aircraft, train and motorcycle noises, although considered, were not used because of greater feasibility of other methods of noise reduction in these cases.

Selected noises were recorded on magnetic tape and later analyzed in octave band widths (Fig. 1).

The analyzed noises were then compared with each other and with published spectra of similar noises, analyzed by other experimenters, to learn if the noises selected were truly representative of the particular types studied. They were found to be substantially so but, because truck noise varies considerably from truck to truck, a

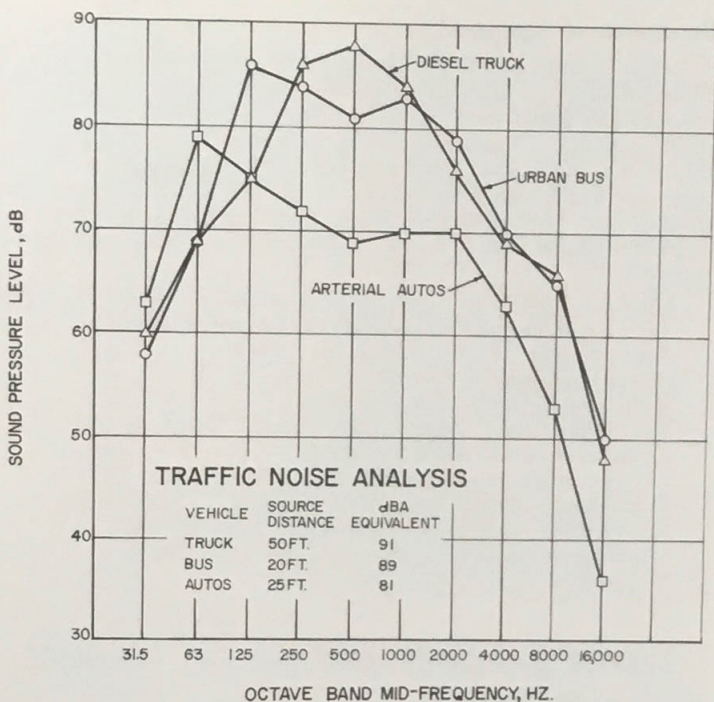


Figure 1. Noise type 1, from a diesel semitrailer, was recorded at an Interstate 80 Rest Area about 18 miles west of Lincoln, Neb. Noise type 2, from a stream of 40 m.p.h. arterial traffic, was recorded on a main street in Lincoln during the 5 p.m. rush hour. Noise type 3, from a City Lines GMC bus, was recorded at a downtown bus stop location in Lincoln.

further refinement was made in the truck noise selection. A large number of truck noises were analyzed. An average of the dB level in each octave band was taken to obtain an "average truck noise spectrum." We then selected the particular truck noise whose spectrum most nearly matched the average truck noise spectrum.

The final step in the development of the noise source was to prepare a master tape from "tape loops" of the selected noises. This master tape, containing 150 noise bursts of the three selected noises, was then used in the field. A single play of the master tape corresponded to one test run at a particular site. During the second season of tests the original truck noise was modified to increase the period of maximum noise level and to improve the accuracy of sound level measurements.

Description of Equipment

Major items of equipment consisted of a portable electric generator, a tape recorder, a high-output sound system, a magnetic tape data recorder and sound level meter, a ceramic microphone and a microphone calibrator. Meteorological equipment included thermometers, hygrometer and a wind speed and direction indicator. A commercial foam-type windscreen was used to cover the microphone. A secondary cloth-covered wire windscreen was also used to eliminate wind blast at wind velocities over 15 m.p.h. A detailed listing of the equipment^a follows:

120 v A.C. 1600-Watt Alternator—Sears Roebuck Model 580.5508.1
Tape Recorder and Playback unit Ampex model 602
Audioamplifier 175 watt; Altec No. 1520-B
Driver Loudspeaker 100 watt, Altec No. 290-D
Multicellular Horn—Altec No. 203-B
Bass Reflex Sound Cabinet—Altec No. 825 w/515 speaker
Crossover network—Altec No. N500-C
Data Recorder—General Radio No. 1525A
Microphone—General Radio Type 1560-P5
Octave Band Analyzer—General Radio Type 1558BP
Sound Level Calibrator, General Radio Type 1562-A
Windscreen, Electro-Voice Type 524-A

CHAPTER II—RESEARCH APPROACH AND PROCEDURE

Experimental Procedure

To evaluate noise reduction, a prerecorded noise was first projected through belts of trees and shrubs and the attenuated (reduced) sound was measured at various distances behind the belts. The same prerecorded sound was then projected over similar surfaces, without the trees, to determine how much of the attenuation was attributable to the belt of trees and shrubs.

Precision equipment was used throughout, to assure high-fidelity reproduction and accurate measurements of the projected sound. Output levels were checked before each test run and sound level meters were checked frequently with a commercial sound level calibrator. The noise source consisted of a low-frequency bass reflex cabinet and high-frequency sectoral horn with a cutoff at 500 Hz (cycles per second), giving an overall flat-response characteristic from 35 to 22,000 Hz for the system.

^a Trade names and company names are used for the benefit of the reader and do not imply endorsement or preferential treatment by the U. S. Department of Agriculture or the University of Nebraska.

The system was driven by a 135-watt amplifier, which provided ample power for the output levels required. For most of the tests the center-lines of the low-frequency speaker and high-frequency horn were located 4 and 6 feet, respectively, above the ground surface. A microphone height of approximately 5.5 feet was used for all measurements. Truck noise at a sound level of 91 dBA, measured 50 feet from the source, was adopted as a reference for most of the tests.

The sound was projected toward belts of trees and shrubs of different heights, depths and densities, at right angles to the belt; distances of 25 and 50 feet in front of the belt were used in most instances. The right angle projection was chosen as representing the worst condition of a traffic noise disturbance. Angular projections would represent a more favorable noise condition, because the transmission distance and the effective screen depth would be greater than that of the right angle projection. The sound level was then measured at distances of 25, 50, 75, 100, 150, 200, 250 and 300 feet behind the trees. Measurements of sound level (dBA) and sound pressure level (dB flat response) were recorded.

The sound projection was essentially from a point source, giving spherical divergence of sound, which corresponds approximately to a single vehicle parked at the location of the loudspeaker system. This is distinguished from a line source, giving cylindrical divergence of sound, which corresponds approximately to a continuous stream of closely spaced vehicular traffic.

Later phases of the investigation included an extended study of truck noise in a rural environment. In this study, the effect of combinations of trees, grass and other soft surfaces on noise reduction, when compared to semihard surfaces (gravel road with grass shoulder) and very hard surfaces (asphalt or concrete highways) was of primary concern.

Also included was a limited study of "in-town" noise screening with prerecorded passenger car traffic noise and bus stop noise. Actual passenger car noise was also used in one of the tests and a correlation coefficient of 0.95 was found between taped and actual noise sources. Five to 10 readings at each microphone position were averaged. The maximum "needle swing" on the meter was taken as a basis for each reading. Tape recordings were also made at each microphone position for later evaluation and analysis in the laboratory.

For certain adaptable test sites, the noise source was placed at distances of 25 to 400 feet from the front of the belt, in efforts to determine the optimum placement of trees between the noise source and a location to be protected.

Control test runs (no trees present) were designed to duplicate as nearly as possible the physical conditions of the regular test runs, so that the effects of trees alone could be observed. Control runs were

made immediately preceding or following regular test runs, to minimize the effect of any possible change in atmospheric gradients. Also, nearby locations with similar terrain were used, where possible, to minimize the effect of different topography and surface conditions. Where a similar surface was unavailable, a correction in sound level was applied to account for the different effects of the test run surface. Special tests were run to obtain "surface correction factors" for these cases.

Measurements of sound levels at wind velocities over 15 m.p.h. were found to be unreliable and were avoided where possible. All data used were for relatively low wind velocities, below 10 m.p.h. in most cases, and all tape recordings were made at wind velocities below 7 m.p.h. "Attenuation" or "difference" curves, which were derived from averages of a number of readings for each belt studied, were also plotted by computer to show:

1. The difference in sound level with and without the presence of trees.
2. The probable overall effect of different tree belt configurations on the reduction of noise.

These computer-plotted curves were omitted from the report in favor of hand-drawn curves, described below.

Hand-drawn curves, adjusted for minor experimental variations and control surface variation by the process of fairing, were also prepared. These new curves gave the sound level and attenuation (measured behind the trees) at various distances from the noise source and were planned for ease of reading and direct selection of tree belts for noise screening. Graphs containing these curves appear in Chapter III.

Only a limited statistical analysis of the test results was made for survey purposes, since the primary objectives of the study were not statistically oriented. The procedure used followed the standard multiple regression analysis procedures of statistics wherein a relationship among a single dependent variable and several independent variables is obtained. An equation giving this relationship and some indication of the relative significance of each variable is also provided.

CHAPTER III—RESULTS OF EXPERIMENTS

Major Belt Tests

Each of the seven major tree belts studied is illustrated in a photograph, a descriptive schematic drawing and graphs of the noise reduction characteristics of the belt (Figs. 2-19). The graphs show the sound level, measured behind the trees, in dBA units, at distances up to about 450 feet from the noise source.

TABLE OF BELT DESCRIPTIONS

Belt no.	Tree height (feet)	Belt depth (feet)	Composition	Page no. reference
2 P	60	90	9-Row Deciduous	44
2 PL	17	67	6-Row Blue Spruce	12
5 P	45	50	2-Row Eastern Redcedar	14
13 Y	30	63	4-Row Eastern Redcedar	16, 31, 38
15 Y	45	100	9-Row Mixed Conif.-Decid.	19, 32, 34, 39
19 S	45	100	10-Row Mixed Conif.-Decid.	21, 33, 37, 40
30 P	58	120	10-Row Mixed Conif.-Decid.	24, 41
38 S	30	45	3-Row Mixed Conifer	27, 42, 58
19 P	38	75	1-Row Eastern Redcedar, 3-Rows Pine	35
Valley Road	18	20	1-Row Shrub, 1-Row Pine	49, 52

Common and scientific names of plants mentioned in the above table and elsewhere in the report are listed in Appendix C.

Each of the three noises used in the experiments is represented by an individual curve. The sound level at any desired distance from the noise source may be read directly from the curve. A set of three "excess attenuation" curves is drawn below the sound level curves to show the reduction in sound level caused by the trees. These are termed "excess attenuation" curves because they show the reduction in sound level due to the presence of trees in excess of the natural attenuation due to distance, atmospheric absorption, ground absorption and other effects. The curves represent the average of a number of tests made during the summer of 1969 at noise source distances of 50 feet from the front edge of the tree belt.

A supplementary series of 25-foot source distance tests was also run at certain adaptable test sites, although we recognized that placement of trees 25 feet from a high speed traffic lane is generally not recommended for safety and other reasons. However, there are certain instances where the smaller distances might be advantageous, for example, in residential areas where speed limits are lower and where a row of dense shrubs is planted nearest the roadway, in front of the taller trees. A graph for each 25-foot source distance test is shown immediately following the 50-foot graph for the same belt.

A single curve for truck noise with no trees present is shown on the graphs for comparison. A theoretical point source sound projection curve is also shown for reference. The equation, which also appears in Chapter IV under "Factors Affecting Noise Reduction" is:

$$S_d = S_o - 20 \log \frac{d}{d_o}$$

where:

d = the prescribed distance from the noise source

d_o = a reference distance where the sound level is known
 S_d = the sound level (dBA) at the prescribed distance from the noise source
 S_o = the sound level (dBA) at the reference distance.

The reader is encouraged to consult the Glossary of Technical Terms (Appendix A), as necessary, for an understanding of the results of the experiments.

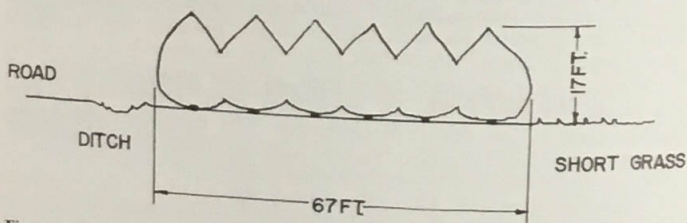


Figure 2. Belt No. 2PL, Donald F. Schwarz Farm. Six rows of blue spruce 17 ft. tall; between-row spacing 10 ft., in-row spacing 10 ft., belt width 67 ft.

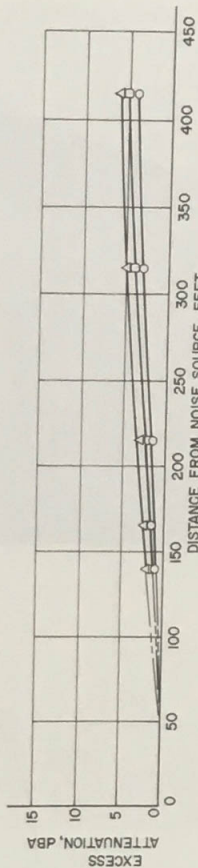
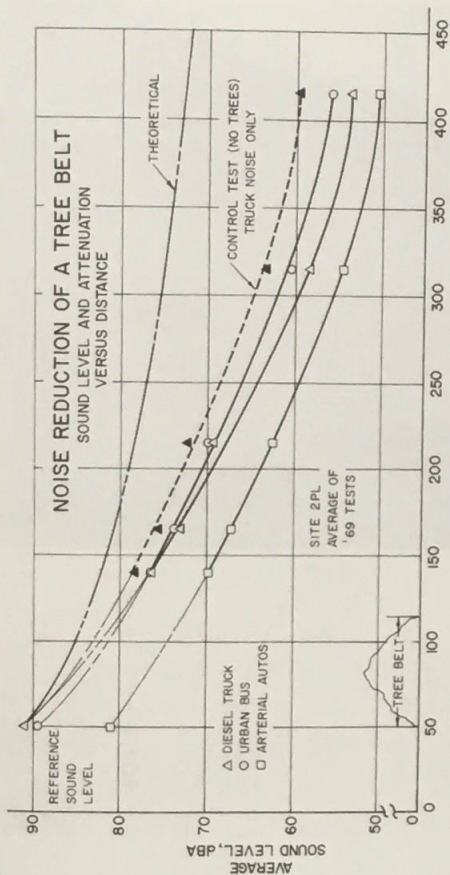


Figure 3. Site 2PL, average of '69 tests.

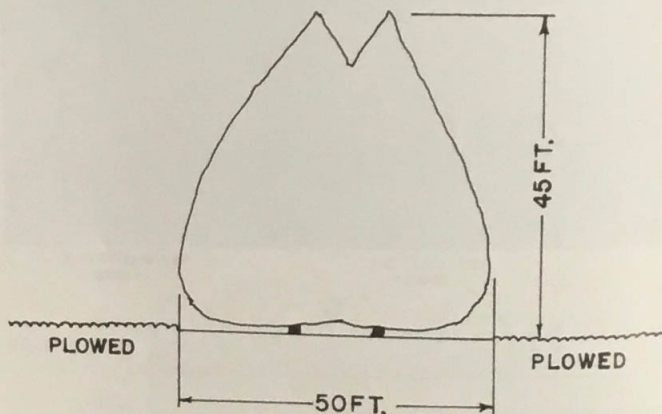


Figure 4. Belt No. 5P, Augustin Bros. farm. Two rows eastern redcedar 45 ft. tall; between-row spacing 8 ft.; in-row spacing 8 ft.; belt width 50 ft. The cornfield shown in the foreground was a plowed surface when the tests were run.

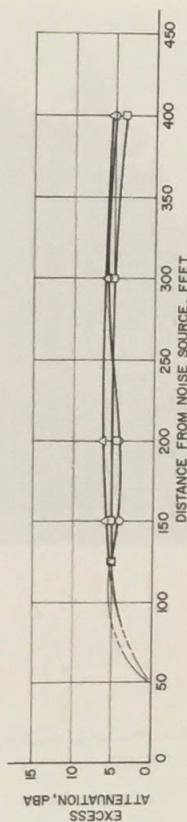
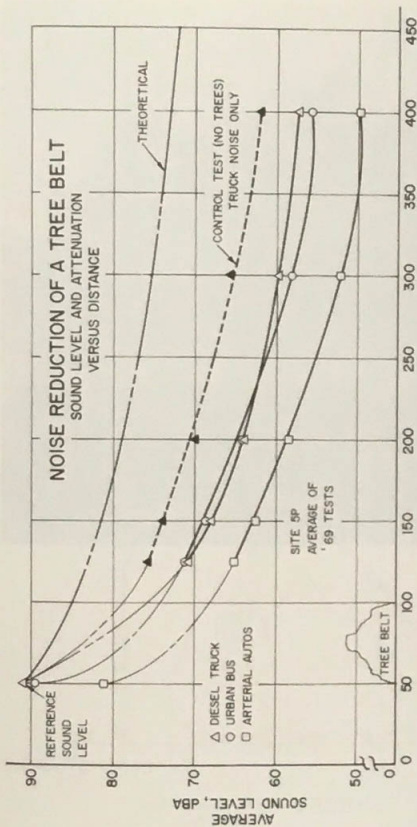


Figure 5. Site 5P, average of '69 tests.

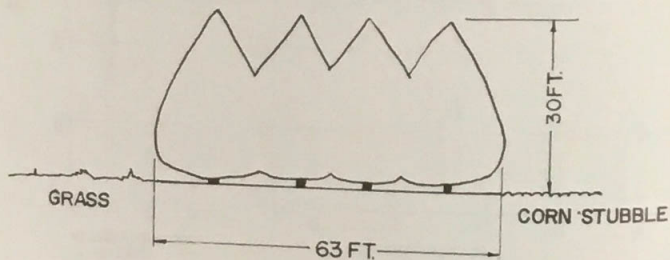


Figure 6. Belt No. 13Y, Lloyd McLain farm. Four rows eastern redcedar 30 ft. tall; between-row spacing 12 ft.; in-row spacing 9 ft.; belt width 63 ft.

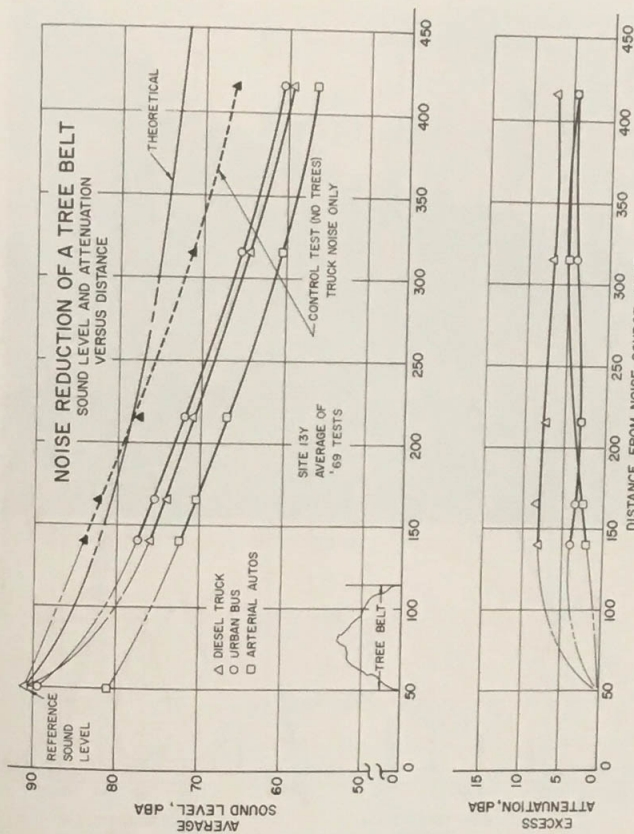


Figure 7. Site 13Y, average of '69 tests.

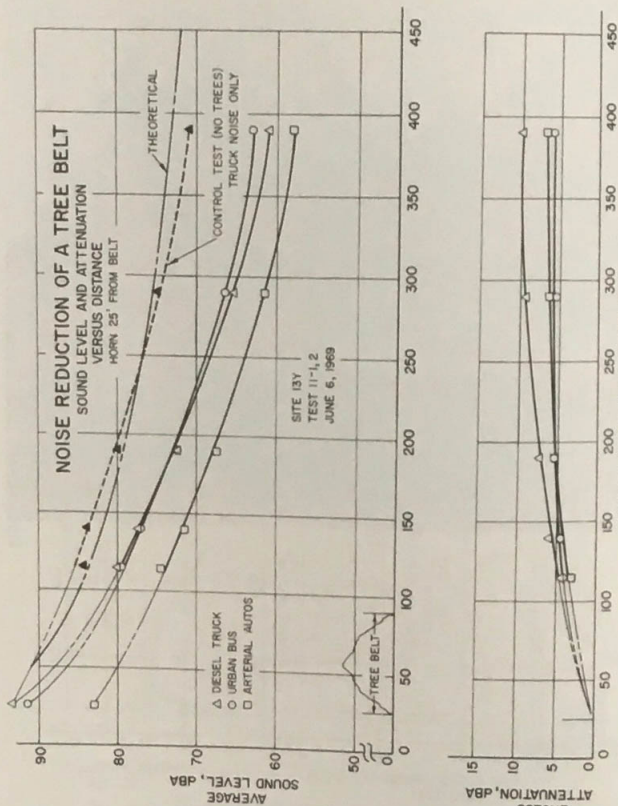


Figure 8. Site 13Y, test 11-1, 2, June 6, 1969.

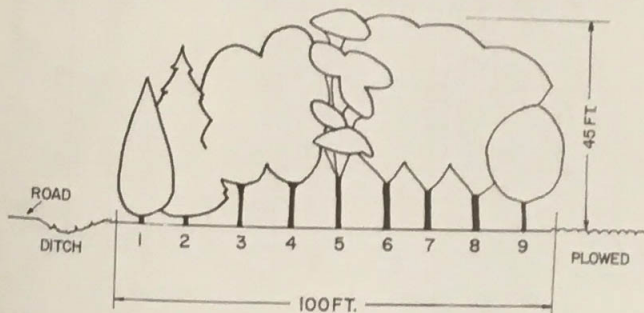
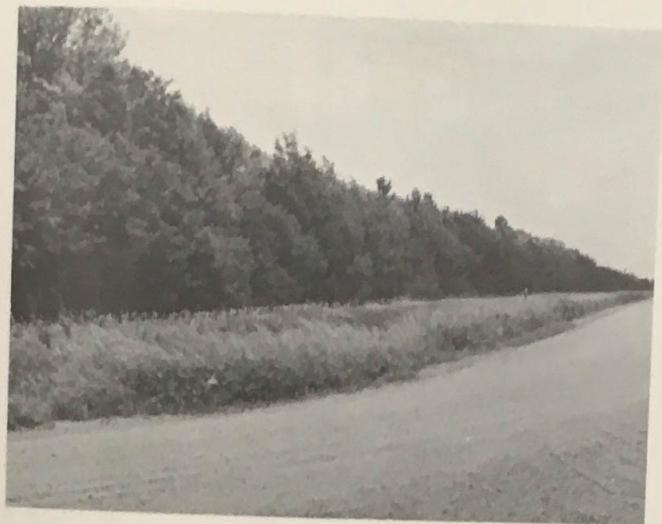


Figure 9. Belt No. 15Y, Irvin and Helen Rafert farm. Nine row belt S. to N. 45 ft. tall; 1. Eastern redcedar. 2. Ponderosa pine. 3. Green ash. 4. Hackberry. 5. Honey Locust. 6. Siberian elm. 7. Siberian elm. 8. American elm. 9. Mulberry. Between-row spacing 10 ft.; in-row spacing 6 ft.; belt width 100 ft.

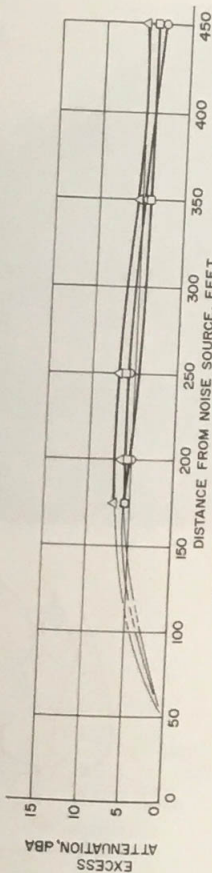
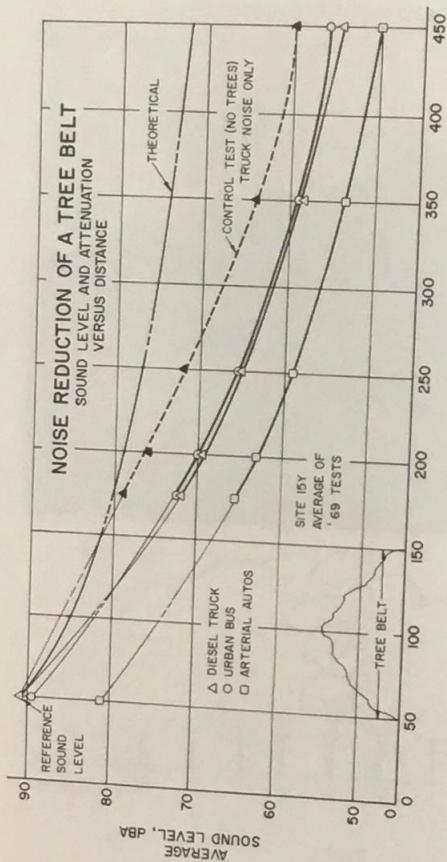


Figure 10. Site 15Y, average of '69 tests.

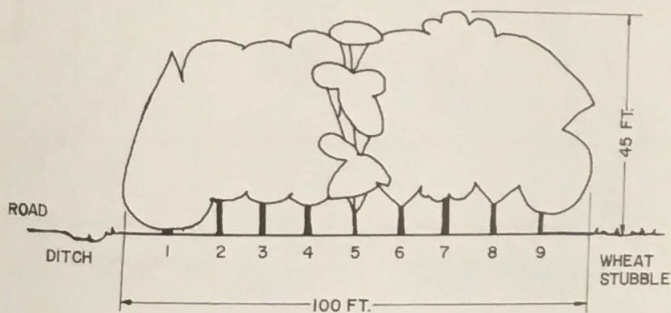


Figure 11. Belt No. 19S, Hackbart farm. Ten row belt, S. to N. 45 ft. tall. Russian-olive (cut)-(not shown); 1. Eastern redcedar. 2. Green ash. 3. Green ash. 4. Hackberry. 5. Honey Locust. 6. Siberian elm. 7. Cottonwood (thinned). 8. Siberian elm. 9. Mulberry. Between-row spacing 10 ft.; in-row spacing 8 ft.; belt width 100 ft.

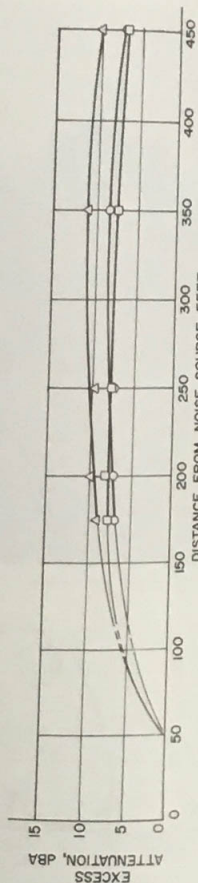
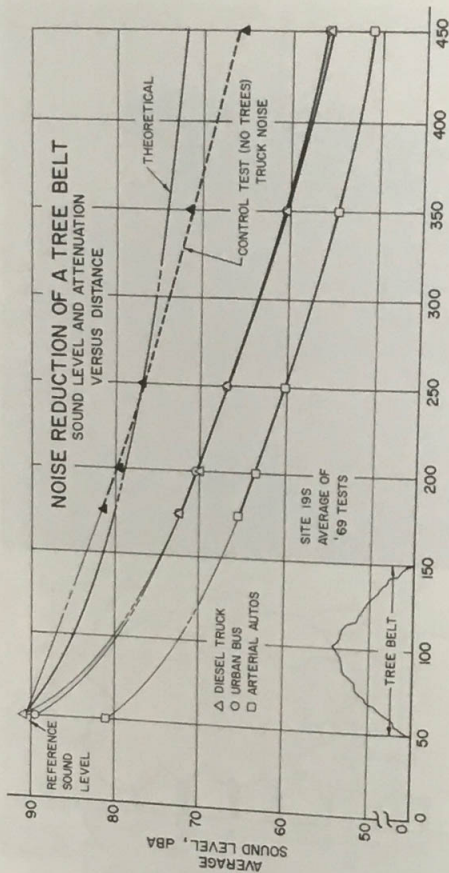


Figure 12. Site 19S, average of '69 tests.

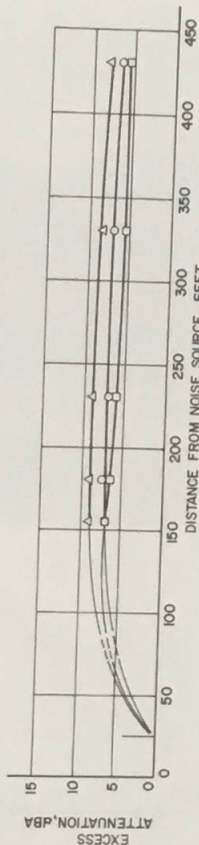
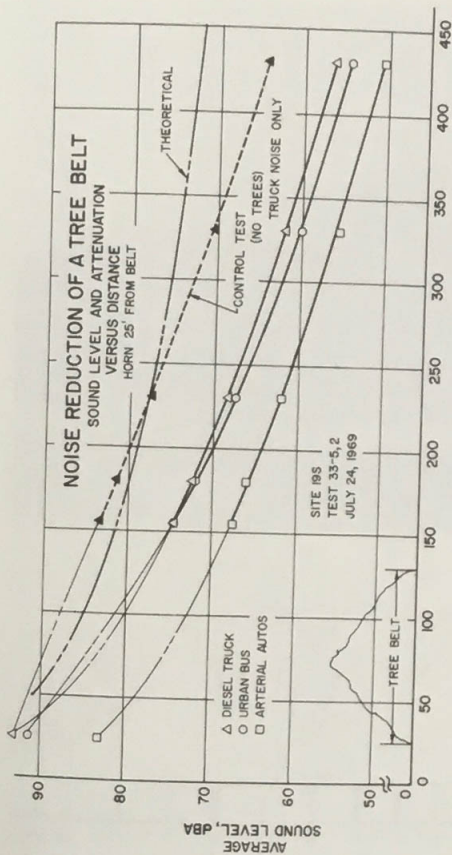


Figure 13. Site 19S, test 33-5, 2, July 24, 1969.

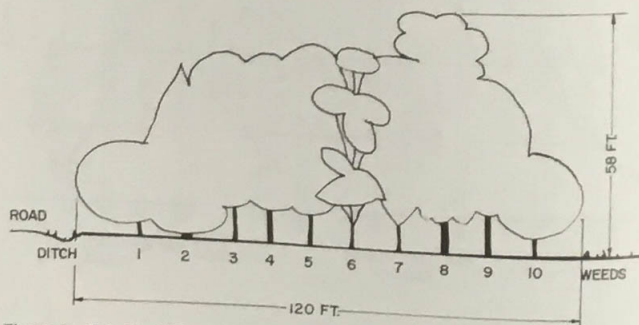


Figure 14. Belt No. 30P, Ed Dobberstein farm. Ten row belt, S. to N. 58 ft. tall.
 1. Russian-olive. 2. Ponderosa pine—Eastern redcedar. 3. Green ash.
 4. Green ash. 5. Hackberry. 6. Honey Locust. 7. Siberian elm.
 8. Cottonwood. 9. Hackberry. 10. Mulberry. Between-row spacing
 10 ft.; in-row spacing 8 ft.; belt width 120 ft.

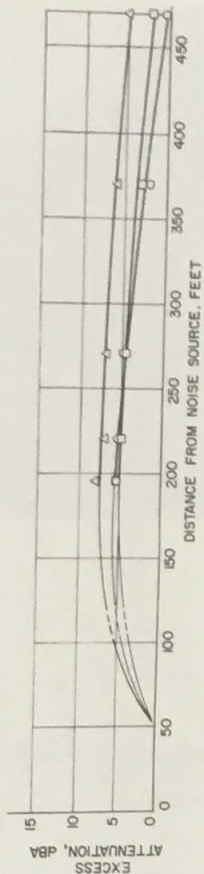
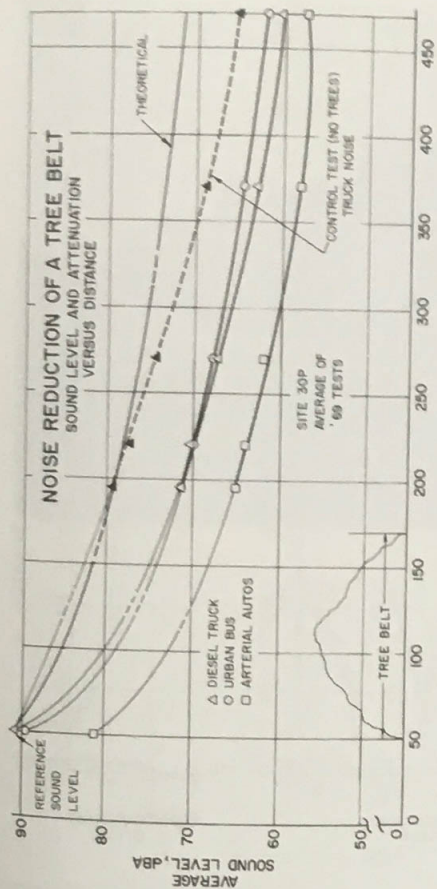


Figure 15. Site 30P, average of '69 tests.

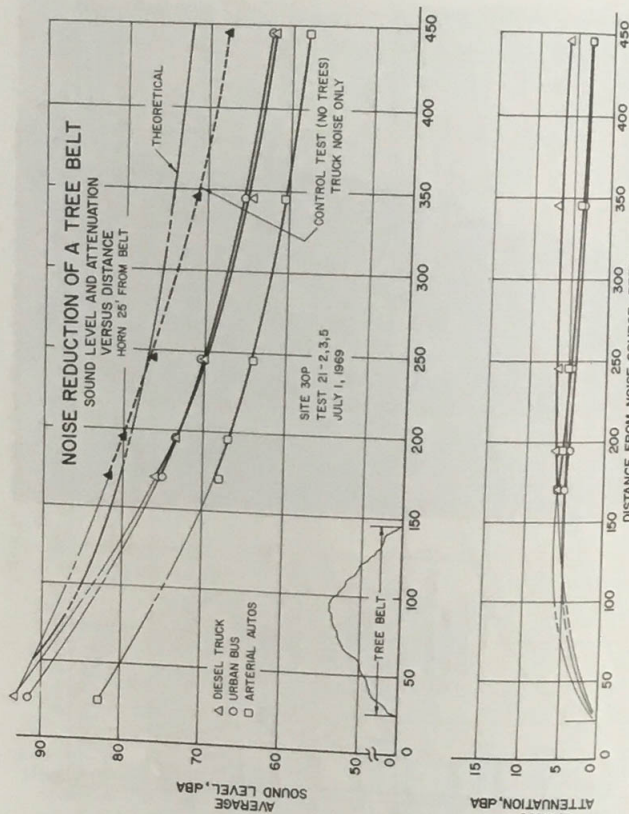


Figure 16. Site 30P, test 21-2, 3, 5, July 1, 1969.

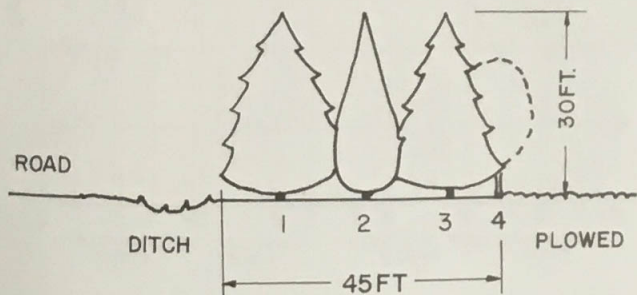
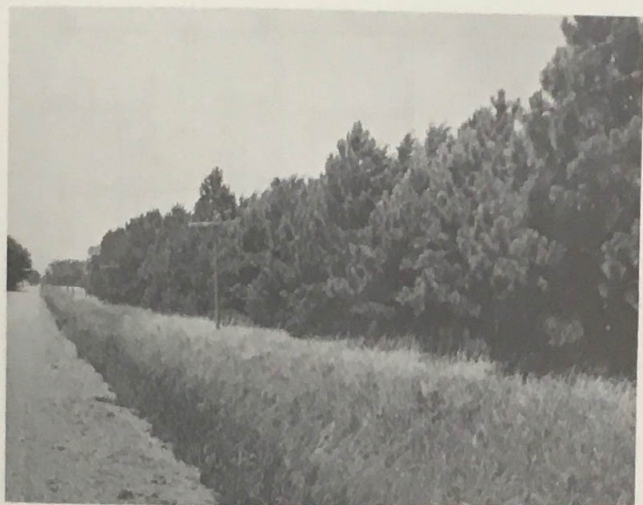


Figure 17. Belt No. 38S, Merle Schluckebier farm. Four row belt S. to N. 30 ft. tall. 1. Ponderosa pine. 2. Eastern redcedar. 3. Ponderosa pine. 4. Apricot (very thin—1 of 6 to 10). Between-row spacing 12 ft.; in-row spacing 8 ft.; belt width 45 ft.

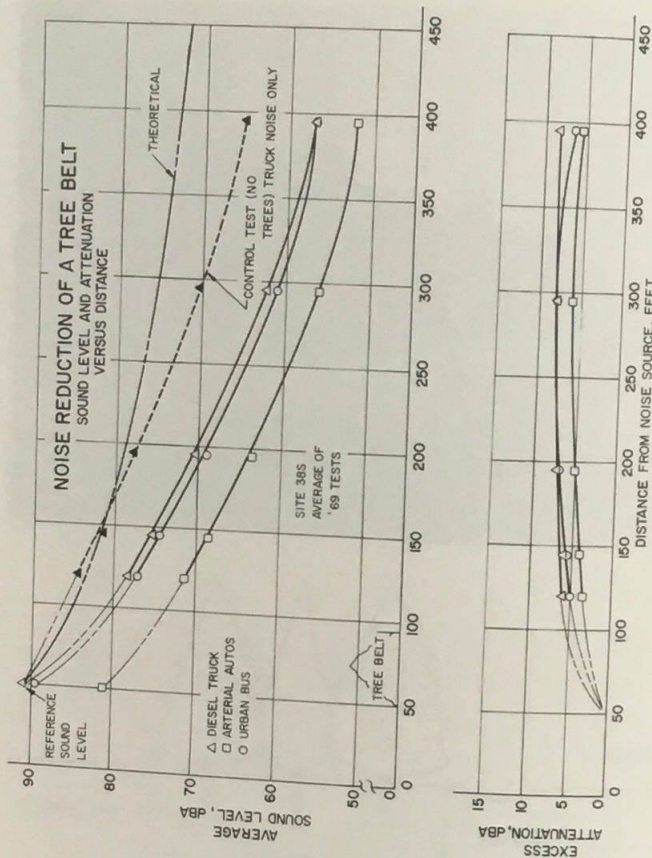


Figure 18. Site 38S, average of '69 tests.

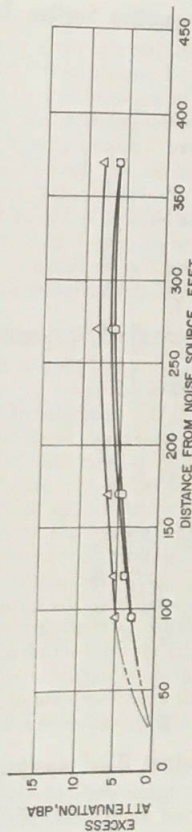
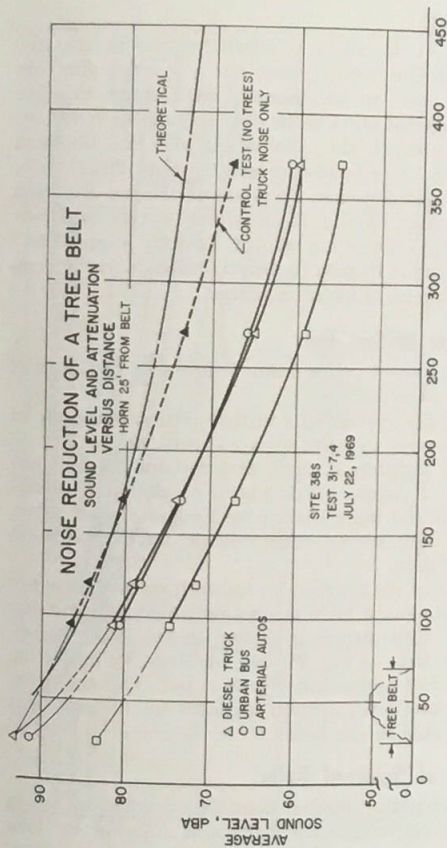


Figure 19. Site 38S, test 31-7, 4, July 22, 1969.

Comparative Surface Tests

During the early part of the study it became apparent that the type of surface over which the sound passes has a marked effect on the noise reduction (this point to be discussed in Chapter IV). We therefore projected the recorded truck noise over surfaces with various degrees of hardness and compared the attenuation with that obtained by projection through trees. The following graphs (Figs. 20-22) show the sound level, dBA units, at distances up to about 450 feet from the noise source. A set of three "relative attenuation" curves is drawn below the sound level curves. These are termed "relative attenuation" curves because they show the reduction in sound level due to the presence of trees relative to several different surfaces.

Longitudinal Propagation Within Belt

A limited study of the sound propagation lengthwise within belts of trees was made for two reasons:

1. To determine the effectiveness of continuous tree plantings in reducing noise, when compared to other surface cover.
2. To determine how far into a grove of trees one would need to go before the noise of a passing truck would be practically indistinguishable from background noise caused by moderate wind movement through the trees. This second reason would have application to camping in a wooded area.

Figs. 23 through 26 show the decrease in sound level with distance into the belt. Background sound level is also indicated. Attenuation relative to a moderately hard surface is shown on the lower curves. Data for the control test curve of Fig. 25 were obtained by projecting the sound *against* a wind of approximately 10 m.p.h. The characteristic rapid decrease of sound level upwind accounts for the relatively low attenuation attributable to the belt.

Octave Band Analysis of Selected Belts

Noise screening properties of selected belts were studied by octave band analysis. Sound levels behind the belts and adjacent to them were recorded on magnetic tape. The tape was analyzed in octave band widths. Graphs which follow (Figs. 27-31) show the analysis of sound levels behind the trees, and excess attenuation for truck noise only. Octave bands with center frequencies of 63, 125, 250, 500, 1000, 2000 and 4000 Hz. were selected for this analysis. A "flat" or unweighted curve and a dBA curve are also shown on the graphs for reference.

These graphs have been included for the benefit of those who may wish to make a more detailed examination of the results; no attempt has been made to explain the characteristics of the results, as such analysis is beyond the intent of this study.

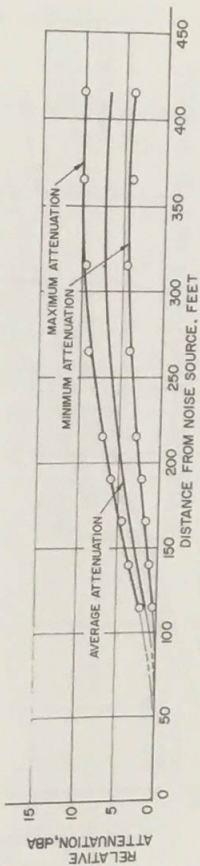
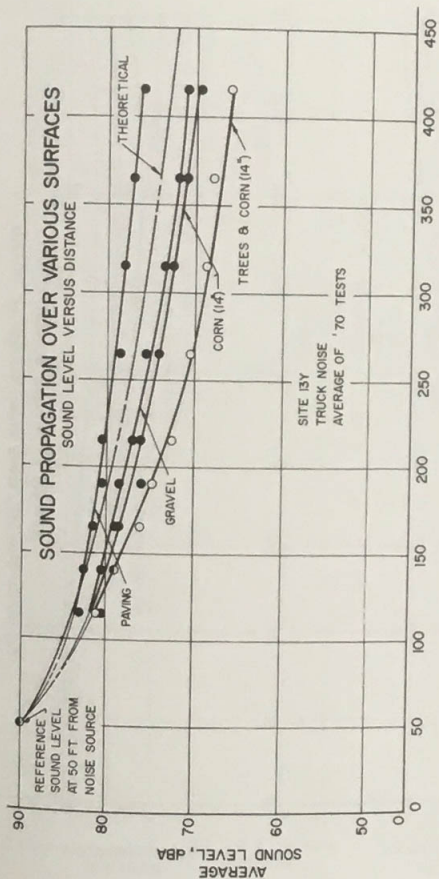


Figure 20. Site 13Y, truck noise, average of '70 tests.

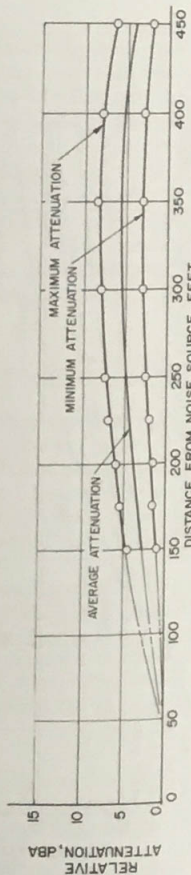
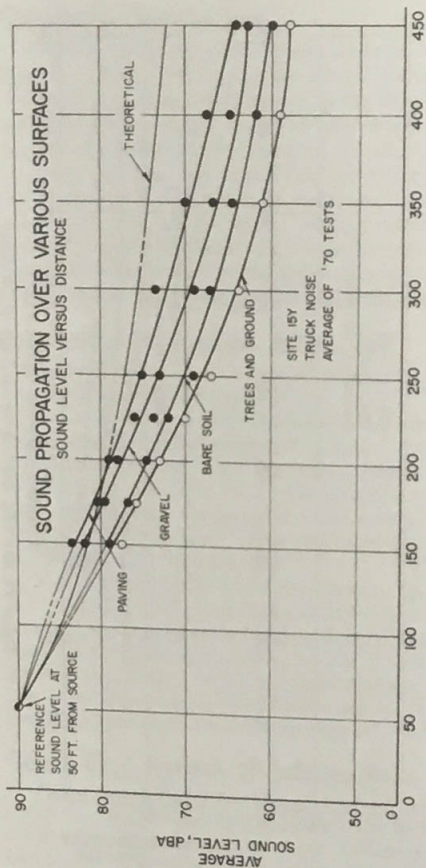


Figure 21. Site 15Y, truck noise, average of '70 tests.

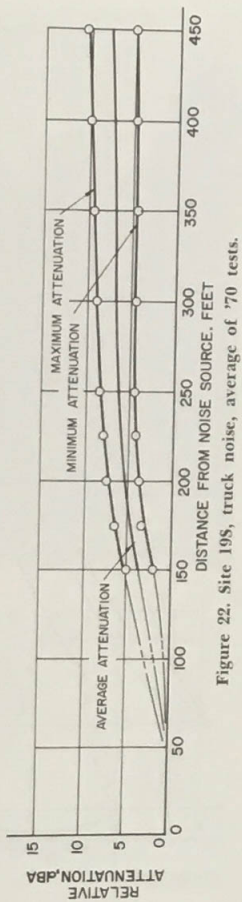
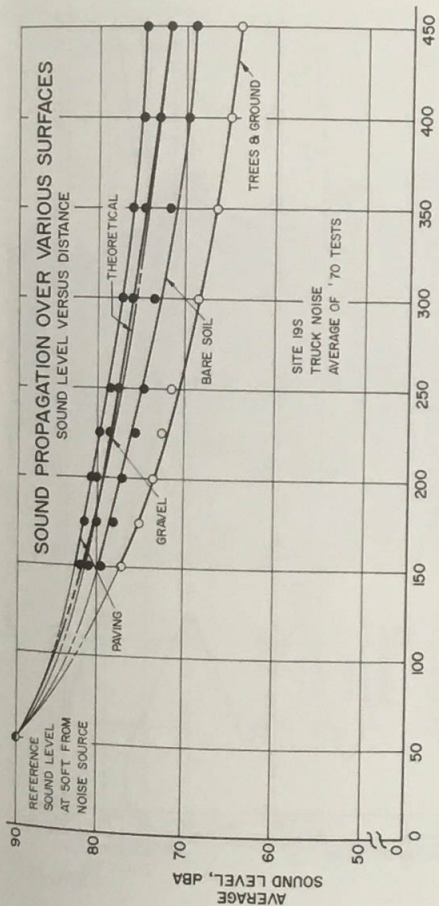


Figure 22. Site 19S, truck noise, average of '70 tests.

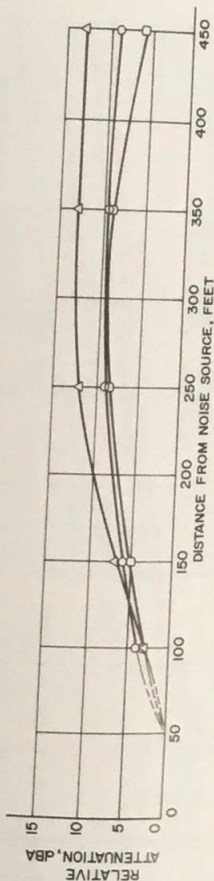
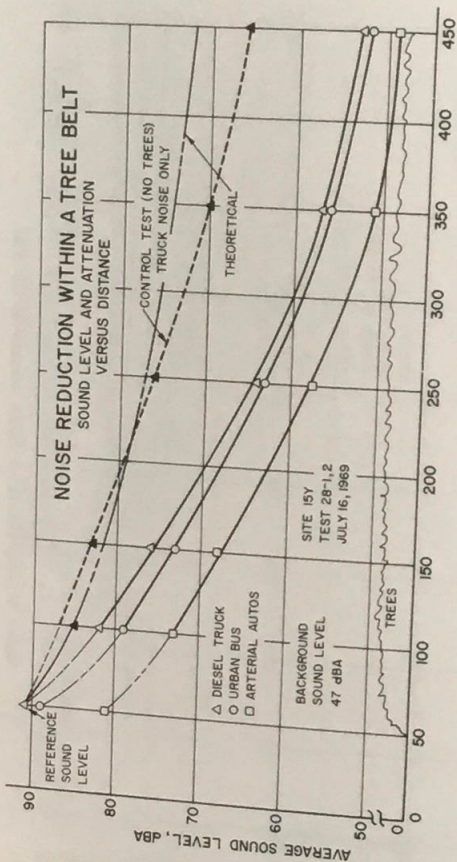


Figure 23. Site 15Y, test 28-1, 2, July 16, 1969.

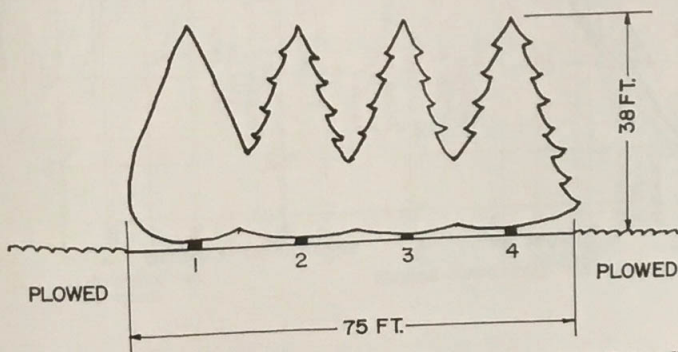


Figure 24. Belt No. 19P, Floyd C. West farm. Four row belt S. to N. 38 ft. tall. 1. Eastern redcedar. 2. Ponderosa pine. 3. Ponderosa pine. 4. Ponderosa pine. Between-row spacing 18 ft.; in-row spacing 17 ft.; belt width 75 ft.

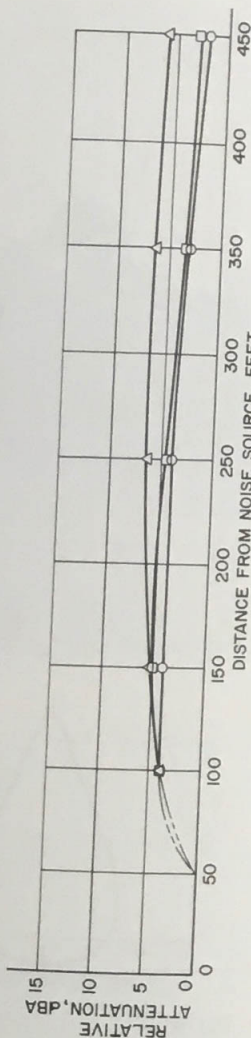
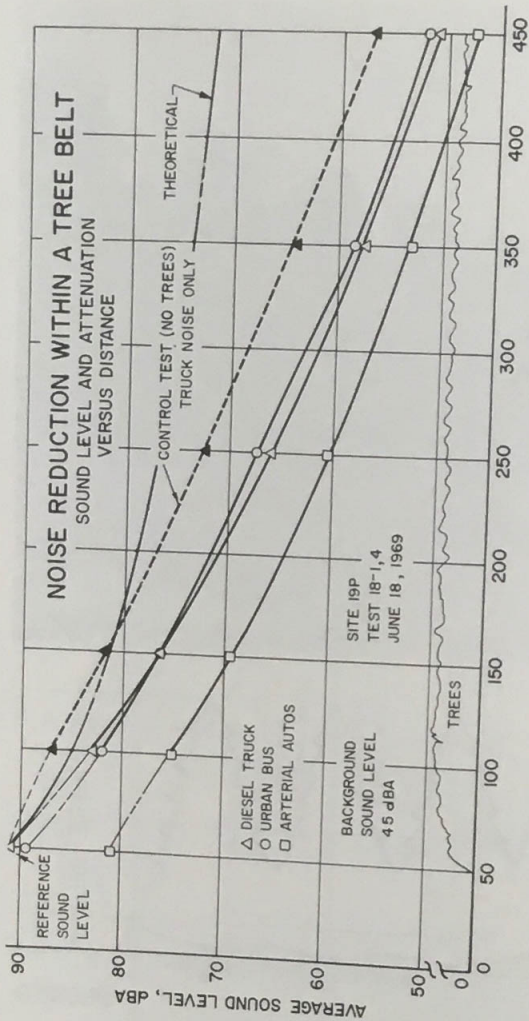


Figure 25. Site 19P, test 18-1, 4, June 18, 1969.

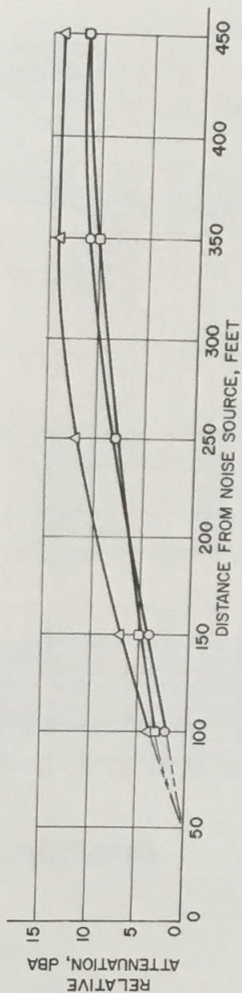
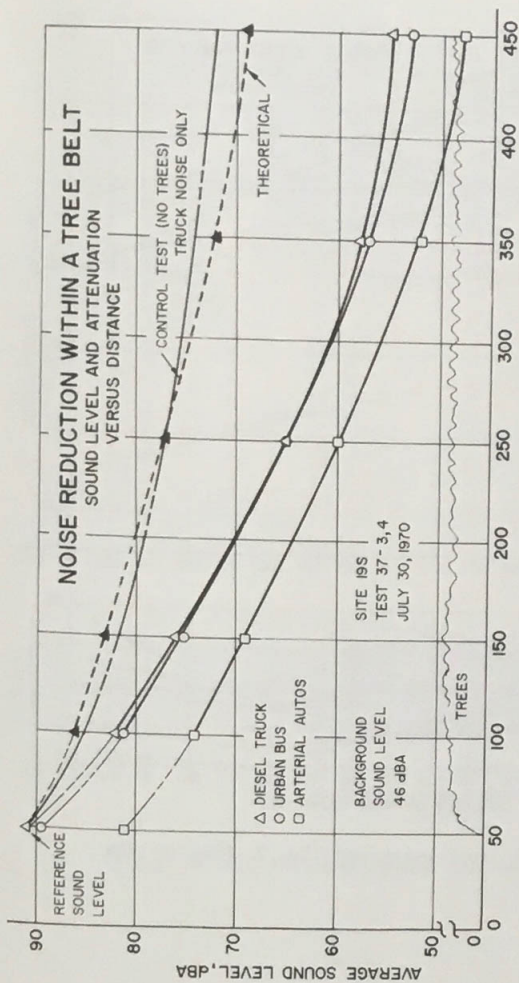


Figure 26. Site 19S, test 37-3, 4, July 30, 1970.

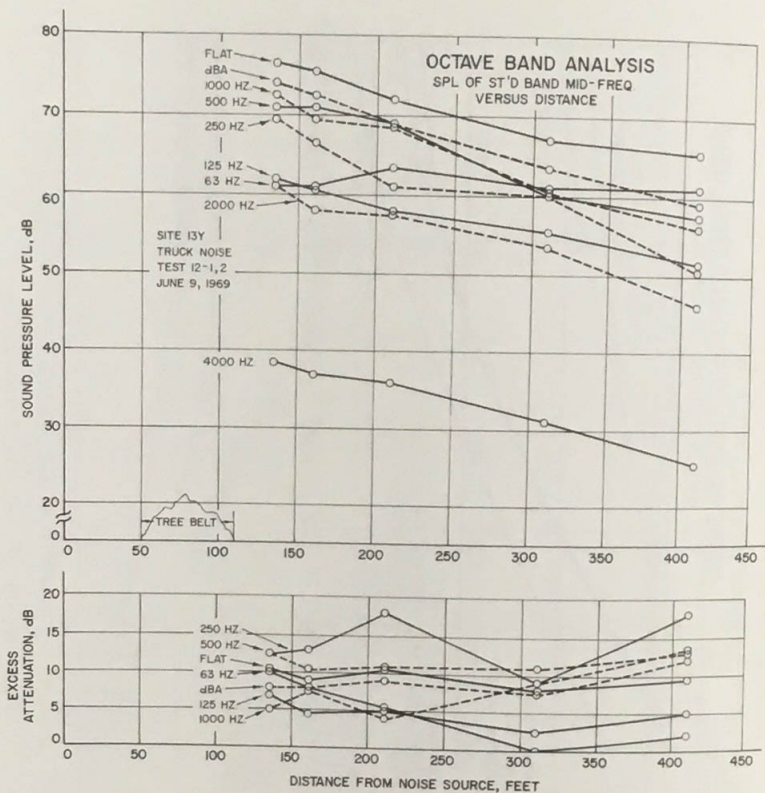


Figure 27. Site 13Y, truck noise, test 12-1, 2, June 9, 1969.

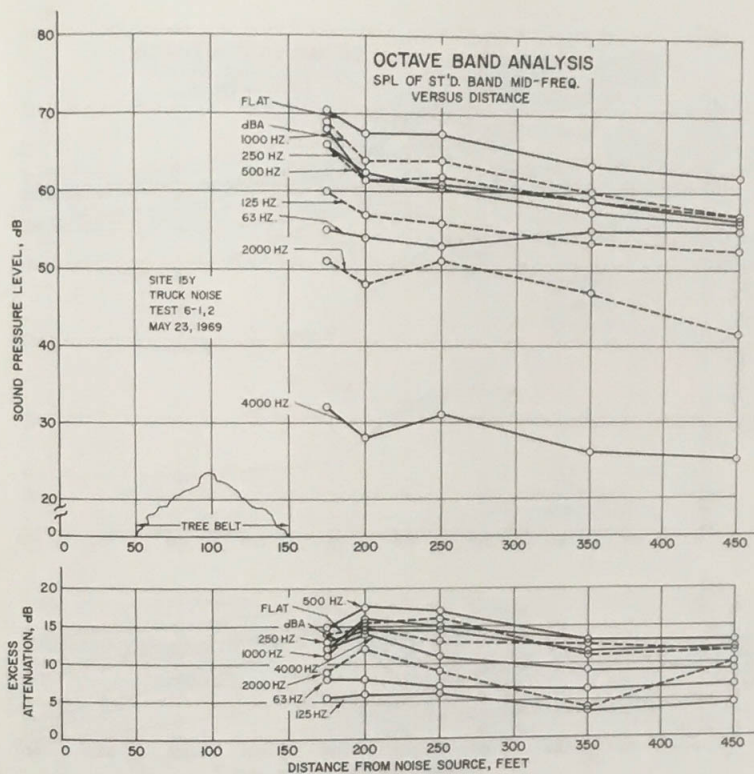


Figure 28. Site 15Y, truck noise, test 6-1, 2, May 23, 1969.

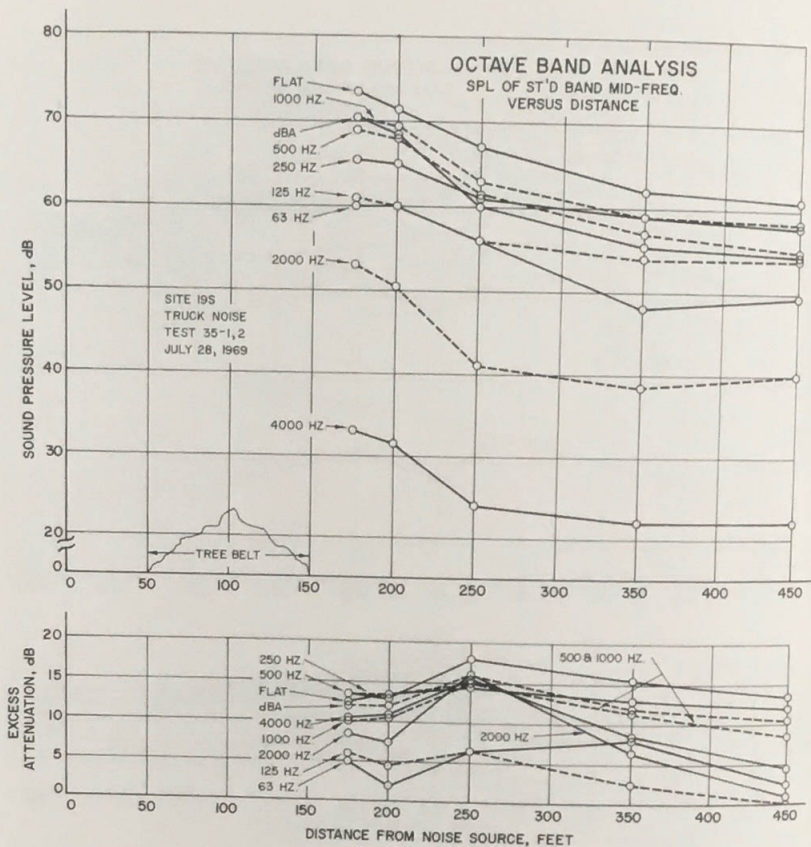


Figure 29. Site 19S, truck noise, test 35-1, 2, July 28, 1969.

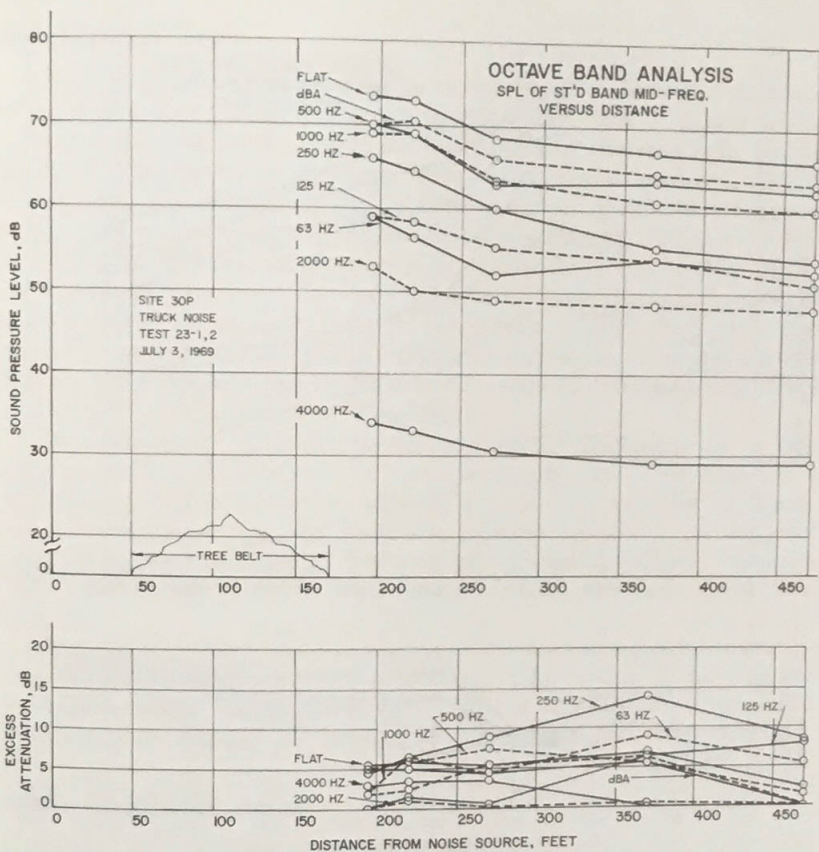


Figure 30. Site 30P, truck noise, test 23-1, 2, July 3, 1969.

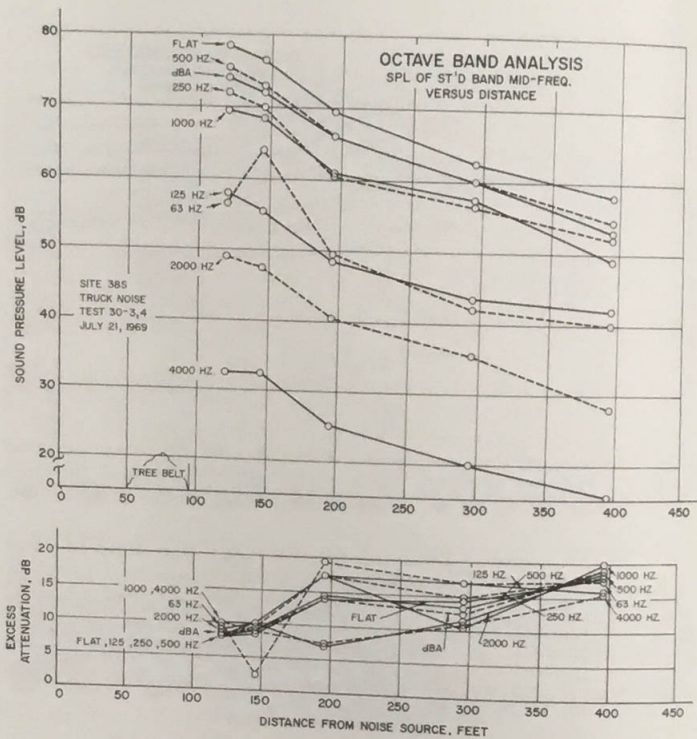


Figure 31. Site 38S, truck noise, test 30-3, 4, July 21, 1969.

Belt Location Tests

To determine the optimum placement of noise screens between a noise source and receiver, a series of tests were run at a site where surface conditions were similar on both sides of the tree belt. Sound source and microphone positions were varied simultaneously, with a corresponding variation in the relative position of the belt between source and receiver. A total transmission distance of 500 feet (source to receiver) was used, including the 90-foot-wide tree belt (Fig. 32).

A ratio R/S (receiver distance from belt/source distance from belt) was conceived as an index of tree placement. A high R/S ratio corresponds to a tree belt placed relatively close to a sound source. Results are portrayed in Fig. 33 and discussed in detail in Chapter 4 in the section "Placement of Tree Belts."

In addition to determining the optimum placement of a belt between source and receiver, it was also desired to learn how far a belt should extend on either side of a protected area for adequate noise screening. A test was therefore devised in which sound level measurements were made at five selected "screen extension" distances of 0, 50, 100, 150 and 200 feet, measured from the end of the belt (Fig. 34).

The distance from noise to receiver was also varied; total transmission distances ranged from 140 to 290 feet. The results of the tests are portrayed in Figs. 35, 36 and 37 for varying source distances, measured from the front edge of the belt, of 25, 50 and 100 feet, respectively.

Urban Residential Areas

Prerecorded arterial automobile noise and urban bus noise was used in limited studies of tree-shrub combinations for noise screening in residential areas. A photograph, schematic diagram and plan view illustrate the location selected (Figs. 38 and 39).

The noise source was located 38 feet in front of the belt. The microphone was located at nine positions, 10 feet apart, behind the belt. A control test was also made along a side street with closely spaced trees and shrubs lining one side, and rather sparse plantings of tree-shrub combinations lining the other side.

For this test, as distinguished from rural area tests, the high-frequency section of the speaker system was placed near ground level, instead of on top of the low-frequency section. The objective was to simulate the position of the source of urban traffic noise, which is due primarily to tire-roadway interaction and engine exhaust. On rural highways, trucks with high exhaust stacks constitute a sizable proportion of the vehicular traffic.

Because of the different configurations of the sound projection system as used to simulate rural and urban traffic, the corresponding

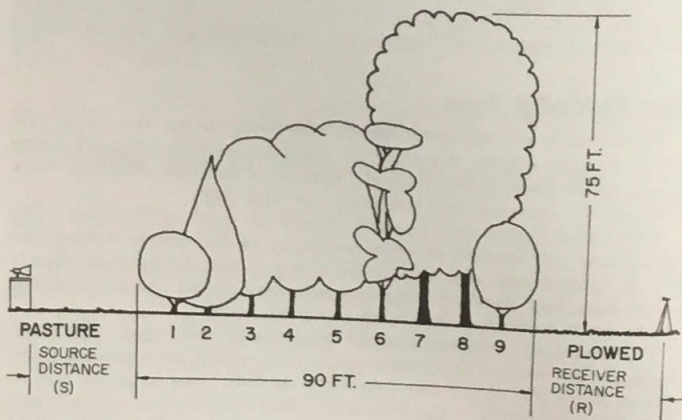


Figure 32. Belt No. 2P, George Spitz farm. Nine row belt S. to N. 75 ft. tall. 1. Russian-olive. 2. Pine and Eastern redcedar. 3. Catalpa. 4. Hackberry. 5. Hackberry. 6. Honey Locust. 7. Cottonwood. 8. Cottonwood. 9. Mulberry, Between-row spacing 10 ft.; in-row spacing 6 ft.; dense undergrowth; belt width 90 ft.

EFFECT OF RELATIVE POSITION OF SCREEN ON NOISE REDUCTION

ATTENUATION VERSUS CLOSENESS RATIO

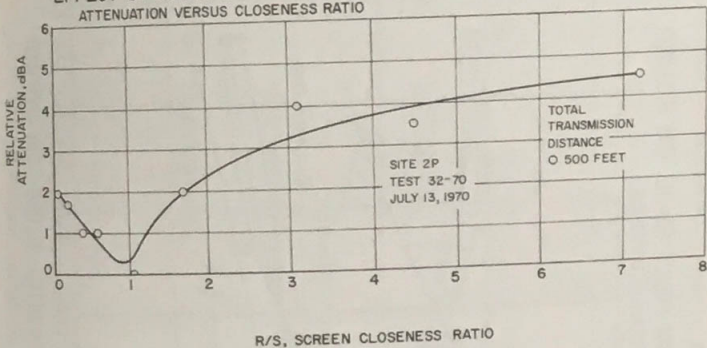


Figure 33. Effect of relative position of screen on noise reduction, site 2P, test 32-70, July 13, 1970.

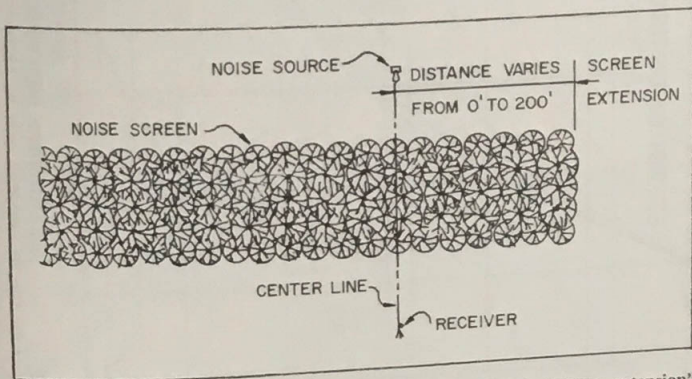


Figure 34. Sound level measurements made at five selected "screen extension" distances of 0, 50, 100, 150 and 200 ft.

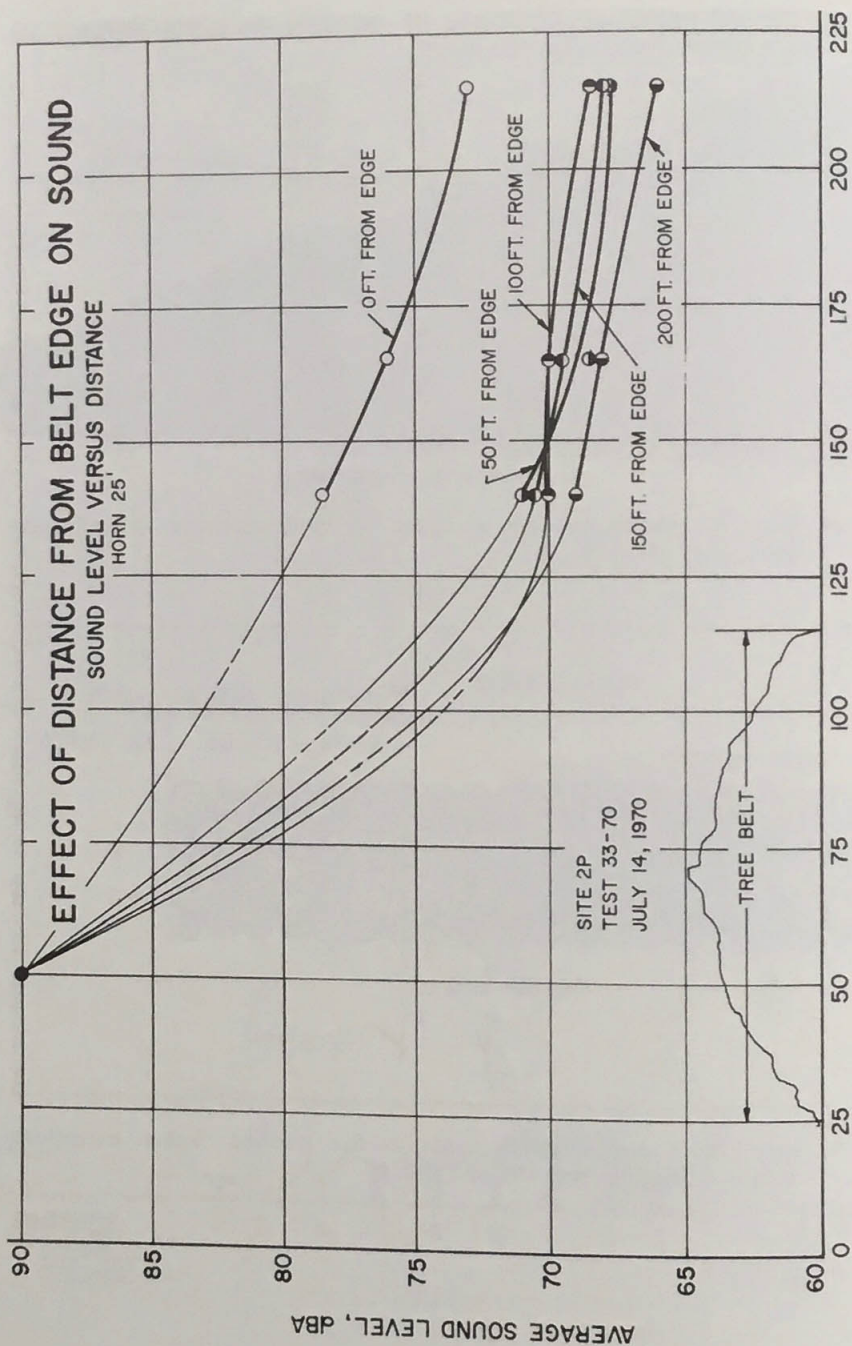


Figure 35. Site 2P, test 33-70, July 14, 1970, sound level vs. distance, horn 25 ft.

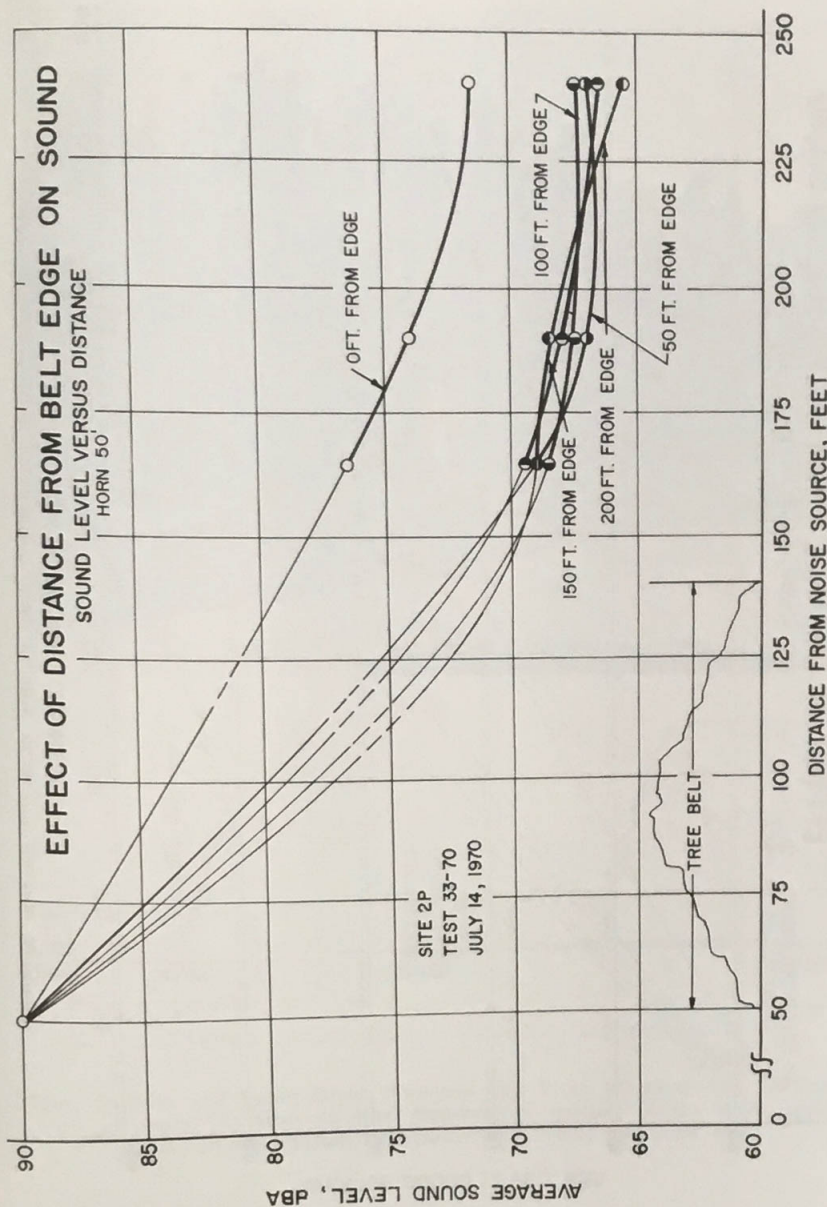


Figure 36. Site 2P, test 33-70, July 14, 1970, sound level vs. distance, horn 50 ft.

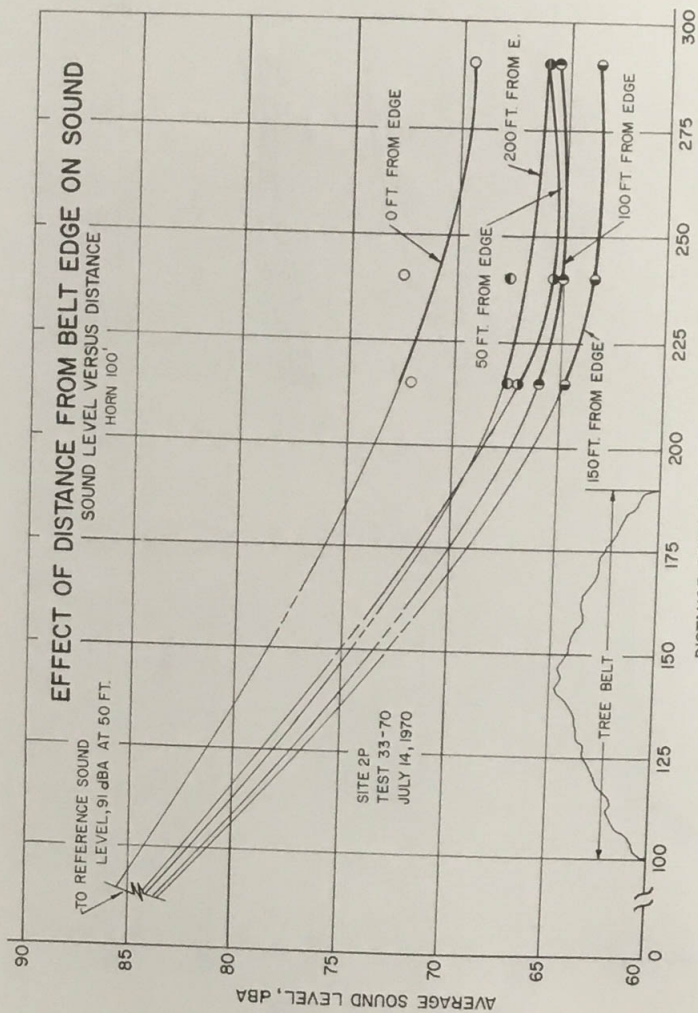


Figure 37. Site 2P, test 33-70, July 14, 1970, sound level vs. distance, horn 100 ft.

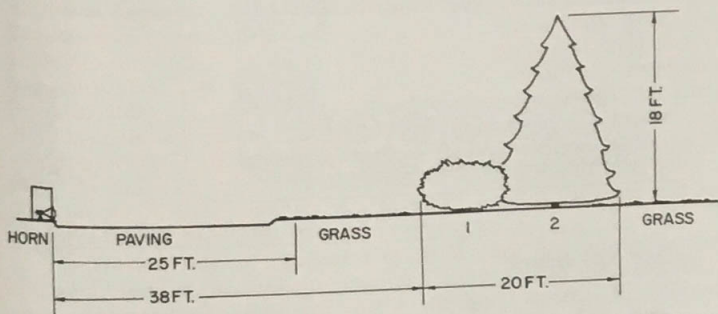


Figure 38. 56th and Valley Road. Two row belt E. to W. 18 ft. tall. 1. Cotton-
easter. 2. Austrian pine. Between-row spacing 10 ft.; in-row spacing
9 ft.; in-row spacing cotoneaster 4 ft.; belt width 20 ft.

URBAN RESIDENTIAL AREA TEST PLAN VIEW

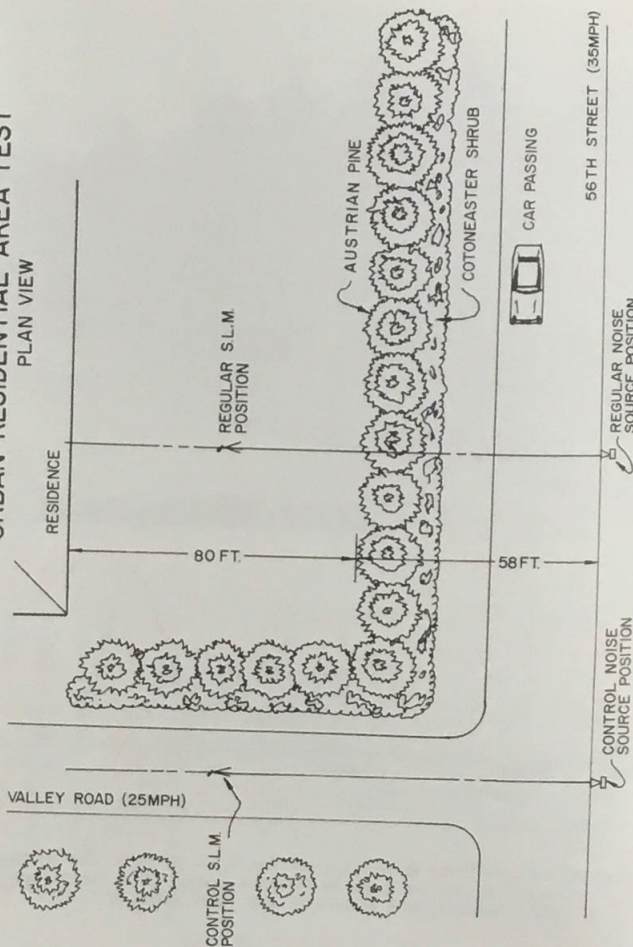


Figure 39. Urban residential area test.

noise reduction curves are not comparable. It should also be noted that the urban residential area test compares sound projection through a relatively narrow belt of trees and shrubs and over a lawn with projection over a tree-lined paved street. Some sound could be reflected from the vegetation lining the street, in addition to the reflection from the pavement, which could produce a "channel effect," accompanied by unexpectedly high sound levels.

Sound levels in the two cases are compared in the upper curves of Fig. 40. Relative attenuation attributable to the tree-shrub-grass combination when compared to the tree-lined street is illustrated by the lower curves. The exceptionally high attenuation is attributable to the lower elevation sound projection, where absorption by trees, shrubs and grass is more complete and where reflection from the pavement surface is greater; also to probable reflection from the surface presented by the trees and shrubs which lined the street.

From the preceding test results one might conclude that a straight driveway leading from a street to a residence could cause a noise problem, especially if it were bordered by hard-surfaced walls. Reflections from dense tree-shrub plantings lining the driveway could also cause some reflection of the sound. The problem might be avoided by using a curved driveway or by leaving openings in the shrubbery.

In a second type of test, unique with the urban area study, we used the actual noise of passing vehicles instead of recorded sound. Near-simultaneous measurements of regular and control tests were also unique to the study. For these measurements, two sound level meters with microphones were used, with one located behind the trees and the other along the side street. A sound level reading (dBA) for each of 10 vehicles was taken as it passed by the tree area opposite one sound level meter. A second reading of the vehicle was taken as it passed by the open street area opposite the second sound level meter. This process of dual readings was repeated behind the tree belt at distances from 0 to 80 feet from the rear edge.

The curve of Fig. 41 represents the difference in readings of the two sound level meters—the attenuation attributable to the tree-shrub-grass combination as compared to the tree-lined street. The plotted points at 128 and 138 feet are believed to be affected by reflection of the sound from the wall of the residence and were disregarded in drawing the curve.

Statistical Analysis

A multiple regression analysis of the data resulted in equations for predicting the sound level (dBA) at various distances from the noise source, including the effect of tree height, belt width, wind velocity and tree type. The equations are shown in tabular form (Table 1).

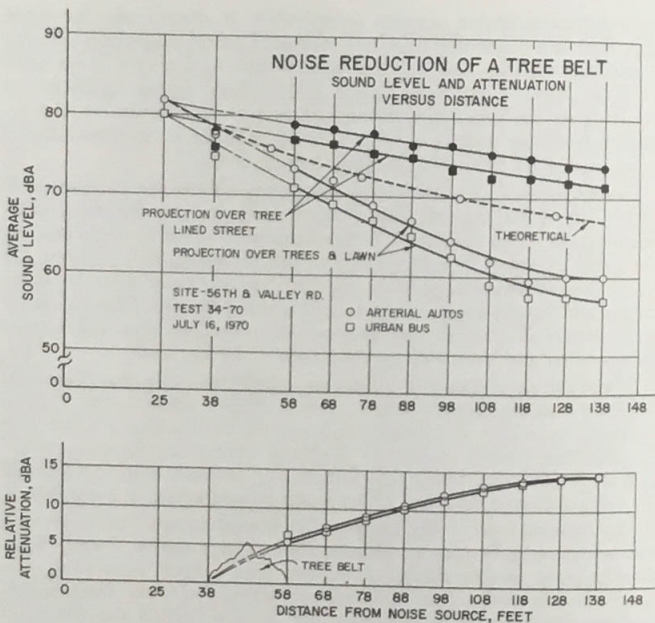


Figure 40. Site-56th and Valley Road, test 34-70, July 16, 1970.

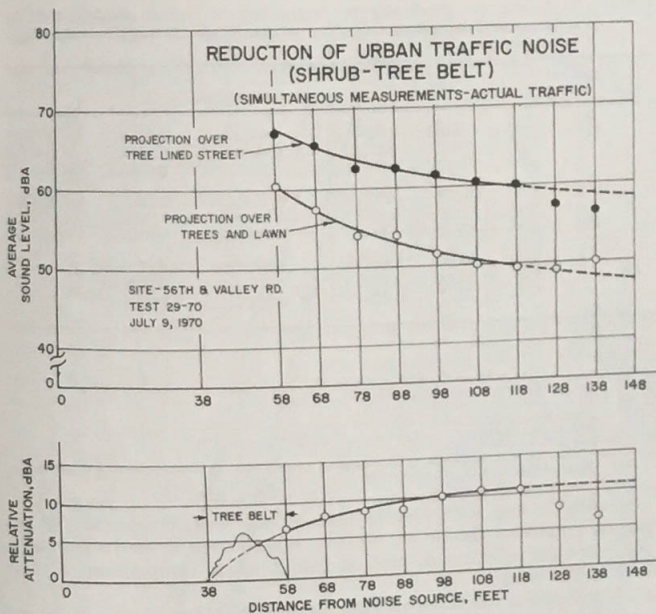


Figure 41. Site-56th and Valley Road, test 29-70, July 9, 1970.

Table 1. Equations for predicting the sound level at various distances from the noise source, including the effect of the height, belt width, wind velocity and tree type.

Tree type	Sound type	Prediction equation
C	1	$X(5) = 81.65 - 0.2257X(1) - 0.0229X(2) + 0.728X(3) - 0.0576X(4)$
	2	$X(5) = 72.91 - 0.3128X(1) + 0.0918X(2) + 0.593X(3) - 0.0544X(4)$
	3	$X(5) = 79.43 - 0.2913X(1) + 0.0665X(2) + 0.627X(3) - 0.0565X(4)$
D	1	$X(5) = 81.60 + 0.0661X(1) - 0.1246X(2) + 0.286X(3) - 0.0563X(4)$
	2	$X(5) = 72.46 + 0.1092X(1) - 0.1149X(2) + 0.253X(3) - 0.0516X(4)$
	3	$X(5) = 79.42 + 0.1599X(1) - 0.1386X(2) + 0.263X(3) - 0.0571X(4)$
CD	1	$X(5) = 80.99 - 0.0671X(2) + 0.260X(3) - 0.0427X(4)$
	2	$X(5) = 71.86 - 0.0425X(2) + 0.307X(3) - 0.0350X(4)$
	3	$X(5) = 77.67 - 0.0394X(2) + 0.196X(3) - 0.0383X(4)$

Tree Type C — (Conifer)

Tree Type D — (Deciduous)

Tree Type CD — (Mixed Conifer Deciduous)

Sound Type 1 — Truck Noise—Interstate Highway

Sound Type 2 — Autos—Arterial Street 40 mph

Sound Type 3 — Bus Stop—Business District

X(5) = sound level behind belt in dBA

X(1) = maximum effective tree height in feet (range: 17 to 60 feet)

X(2) = belt width in feet (range: 45 to 120 feet)

X(3) = wind velocity component in direction of propagation in mph (range: 5 to 12 mph)

X(4) = distance behind belt in feet (range: zero to 300 feet)

The noise source is 50 feet in front of the belt. Application of the tabular equations should be limited to tree belts of similar size, composition and proportion, and to sound levels comparable to those used in the study.

A comparison of a statistically derived result with one of the experimental curves is illustrated in Fig. 42. For a more complete discussion of the statistical analysis and suggested use of the equations refer to the section of Chapter IV entitled "Observations and Conclusions from the Statistical Analysis."

CHAPTER IV—OBSERVATIONS AND CONCLUSIONS

Factors Affecting Noise Reduction

Outdoor sound transmission, and therefore noise reduction, is affected by such known factors as distance; atmospheric absorption, humidity and temperature; wind gradients, speed, direction and turbulence; and by media interposed between sound source and receiver. Numerous empirical and theoretical equations have been proposed to predict the sound level at various distances from a noise source (20). One such equation, which is for a point source free sound field is:

$$S_d = S_o - 20 \log \frac{d}{d_o}$$

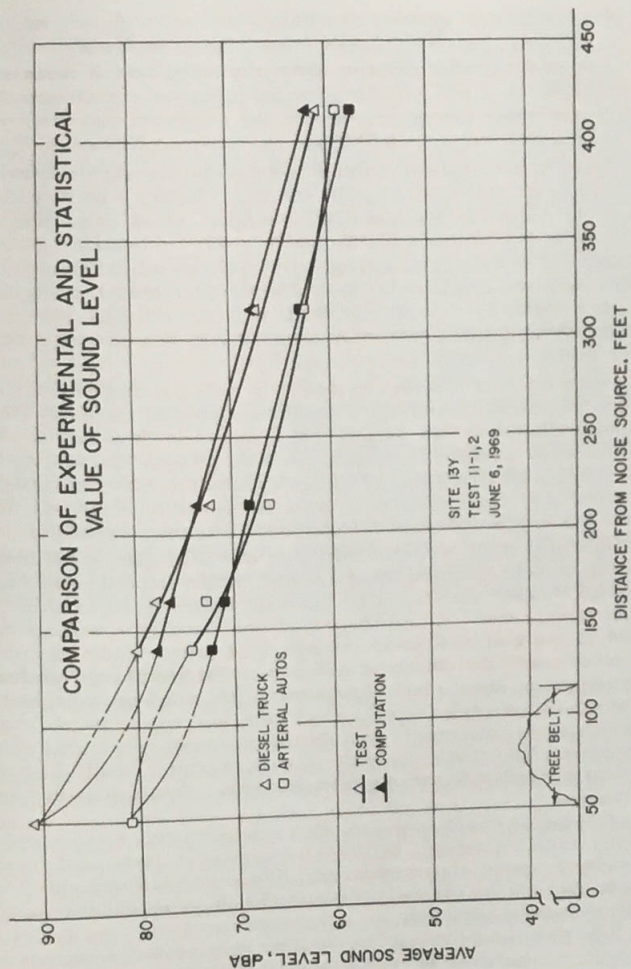


Figure 42. Site 13Y, test 11-1, 2, June 6, 1969.

where:

d = the prescribed distance from the noise source

d_0 = a reference distance where the sound level is known

S_d = the sound level (dBA) at the prescribed distance from the noise source

S_0 = the sound level (dBA) at the reference distance.

Sound levels obtained from this equation are slightly different from those measured in our study but the difference is no more than might be expected, considering the number of variables affecting outdoor sound propagation. A gravel road with grassy shoulders (classed as a medium-hard surface) gave results closest to the equation. Other hard surfaces were within 3 dBA in most cases. Doubling the distance results in a decrease of 6 dB with this equation, whereas a line source projection, referred to earlier, results in a decrease of 3 dB with doubling of distance.

When trees and shrubs are used as a noise-reducing medium between source and receiver, the structural components which may affect sound transmission are height, width and overall density of the barrier, as determined by species, planting patterns, tree spacing in and between the rows, and by foliage distribution. Statistical analysis disclosed only slight differences, however, in ability of different tree species to reduce noise levels for the kinds of traffic noise studied.

Generally, then, we might infer that tree belts affect sound transmission by height, belt width and overall density (related to diffusion through number and extent of diffusing elements), rather than by differences in leaf size and shape and branching characteristics (related to resonant absorption through wave length and frequency). In other words, the process of diffusion would seem to prevail over the process of absorption. Absorption is not ruled out completely, however, because noise type I, which contains proportionately more high-frequency components than do the other two noises, does show the greatest reduction of the three in most instances. Finally, it seems evident that other factors are more significant than species in noise reduction.

Tree height would appear to affect noise reduction because of the greater surface presented to the advancing wave front, and consequently the more opportunities for diffusion and absorption. The results do indicate, generally, that tree height is significantly correlated with noise reduction.

Belt depth would also appear to affect noise reduction, because of the greater number of trees and consequently greater number of absorbing and diffusing elements to impede the passage of the sound. The results do indicate, generally, that belt depth is significantly correlated with noise reduction.

Belt density also undoubtedly affects noise reduction. The greater

number of elements per unit volume in a denser belt would provide a greater absorption area and more complete diffusion. A major problem arises, however, in attempting to relate belt density to noise reduction, because no completely satisfactory method has been devised for numerically measuring belt density. Estimates of the percentage of ground cover in an area have been used as a measure of density in some studies. Radioactive techniques have been devised to give a measure of the amount of matter between two points. Belt density, as understood by the windbreak specialist, refers to the ability to reduce wind velocity. In most experiments, extremely low wind velocity behind the belt indicated near-maximum windbreak density. One belt studied contained a section of rather "scrawny" trees, where passage of light was relatively unobstructed; the test results for this section showed a marked decrease in noise-reducing capability compared to more dense sections of the same belt (Fig. 43).

Compensating factors of nature appear to affect belt density and, therefore, noise reduction. Wider deciduous belts are relatively free of foliage and small branches within the belt, especially at lower levels, and appear to be somewhat "hollow" whereas narrower belts, especially conifers, have foliage and small branches throughout the belt from top to bottom. These compensating factors probably account for the smaller-than-expected differences in sound level attenuation between wide and narrow belts. It would appear, then, that while belt density is related to noise reduction, no numerical relationship is feasible until a more satisfactory method of measuring it can be devised.

Surface Considerations

The softness of the surface that the sound passes over markedly affects attenuation. This effect is primarily due to absorption of a soft surface as opposed to reflection from a hard surface. During the course of the experiments it became apparent that part of the attenuation observed was due to the trees, and part was due to the ground surface cover. Wherever possible, this difference was eliminated by making both the regular test runs (with trees) and the control test runs (without trees) over nearly identical surfaces.

When inaccessibility, unfavorable terrain or the presence of other factors which might have influenced the results, made surface duplication in the control runs impractical, correction factors were applied to the control run readings. Special tests, previously referred to, were made to develop surface correction factors for hard surfaces, such as a roadway; medium surfaces, such as short grass; or soft surfaces, such as tall grass, freshly plowed ground or tall wheat stubble.

Finally, the results indicate that the type of surface over which a sound may pass is an important consideration in any research study

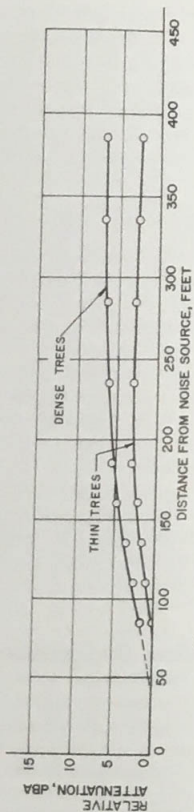
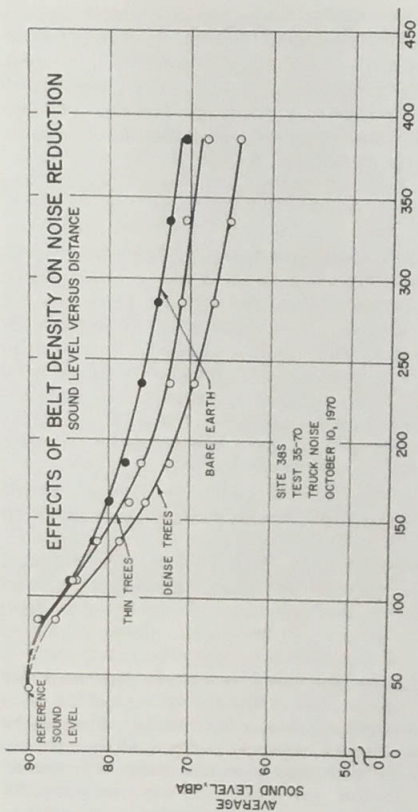


Figure 43. Site 38S, test 35-70, truck noise, October 10, 1970.

or planning operation which includes outdoor sound transmission, or noise reduction by the use of vegetation. Figs. 20, 21 and 22 in the section entitled "Comparative Surface Tests" illustrate this point. Attenuation is greatest when trees and soft surfaces are compared with hard-surfaced pavement. *It is apparent that the presence of trees, shrubs and grass, in an area which might otherwise be hard-surfaced, would significantly reduce noise.*

Atmospheric Gradients

Atmospheric gradients of temperature, humidity and wind velocity have recognized effects on sound transmission (and noise reduction) (18). They refract or "bend" the sound rays (or wave front) upward or downward by changing the normal velocity of propagation at varying elevations. Downwind propagation, associated with a positive velocity gradient (velocity increasing with altitude) tends to bend the rays downward and maintains audibility at considerable distances. On the other hand, upwind propagation—associated with a negative velocity gradient—tends to bend rays upward and rapidly decreases audibility.

A comparable situation exists with temperature gradients during the day as the sun warms the fields. Positive temperature gradients (temperature increasing with altitude) are typical during early morning and evening hours when the ground is cool, whereas negative temperature gradients are typical during mid-days when the ground is warmed by the sun. In the summertime, a band of cooler, high-density air within a belt of trees may offer some resistance to sound penetration. This phenomenon, studied by early experimenters (1), represents another atmospheric refraction of sound associated with tree belts.

Slight variations of humidity appear to have little or no direct effect on the propagation of sound. Extremely high humidity, as during a rain or fog, however, tends to produce a more homogeneous atmosphere, and in so doing favors the propagation of sound in most cases. Humidity thus appears to have a relatively minor effect on the use of trees and shrubs for noise abatement.

The continually varying atmospheric gradients during the day and from one day to the next pose a major problem for the experimenter and contribute to variations in sound level readings which can neither be completely accounted for nor accurately compensated for. These effects can be minimized on a given day by making "tree" runs and "control" runs in immediate sequence and by adopting a standard procedure of projecting the sound for "tree" runs and "control" runs in the same direction and over similar surfaces. Test results on a given belt over a period of several days were averaged to improve

the accuracy over a single test (Figs. 3, 5, 7, 10, 12, 15 and 18 in Chapter III, Test Results).

Observations indicate that the need for downwind placement of noise screens is greater than for upwind placement, because sound level tends to decrease more rapidly upwind anyway. Further indications are that tree barriers tend to modify the wind patterns in a way which does not favor upwind sound reduction but does favor downwind reduction. Upwind placement is therefore less efficient than downwind placement.

Placement of Tree Belts

The distance from sound source to the front edge of a belt of trees or shrubs is often governed by right-of-way requirements, in the case of major highways, and by anticipated use of the space for other purposes, such as pedestrian traffic, in urban areas. Large trees closer than 50 feet from the edge of a roadway may pose a threat to auto safety. This 50-foot distance is also necessary to prevent snow from drifting over the highway, or branches from being blown onto the highway by high winds. Also, trees placed too close to highway intersections tend to decrease visibility.

Most of the tests were run at noise source distances of 50 feet from the front edge of the tree belt. For certain selected belts, tests were run at noise source distances of 25 feet. A comparison of the noise reduction curves for 25- and 50-foot source distances of the same belt disclosed only minor differences in attenuation. Any advantage gained by placing the belt much closer than 50 feet to the noise source appears to be offset by other factors.

Results of the belt location tests, to determine optimum placement of large tree belts between a noise source and an area to be protected, were portrayed in Fig. 33. The curve on the graph shows a pronounced "dip" at an R/S ratio (receiver to source distance) equal to unity. This corresponds to a tree belt placement midway between noise source and receiver and indicates low attenuation and ineffective placement of the belt. The attenuation increases as the R/S ratio increases, indicating a more effective placement of the belt. The upward turn of the curve at low R/S values, which correspond to a placement of a belt close to a protected area, indicates that some benefit may be realized by having the belt "close in" but not as much as when the belt is placed near the noise source.

The curve does not represent a sufficient number of tests to justify its use for design purposes but does support earlier observations that trees most efficiently screen noise when they are placed relatively close to the noise source, providing the foliage extends to the ground. There is a possibility of "blast through" of high intensity sound at ground level and at the closer source distances, where the wave front

is more concentrated, and where there are openings in the tree structure and foliage pattern. This effect may be partially responsible for inconsistencies found when 25 foot and 50 foot source distance test results are compared. *It would seem that planting distances from 35 to 65 feet from the noise source would yield optimum results for tree belts of considerable height and depth in rural areas.*

Other tests within the city indicate that placing trees and shrubs close to a noise source is desirable; a distance of 10 to 25 feet from a noise source to nearest shrub would seem to yield optimum results.

Results of the second type of belt location tests, to determine the desirable extent of a noise screen on either side of a protected area, were portrayed in Figs. 35, 36 and 37. Similar results were observed with "in-town" tests. For good results, the noise screen should extend on both sides of a protected area for approximately the distance from noise source to receiver. The screen should hide the noise source from view, until the distance from source to receiver is sufficient to produce an acceptably low noise level without the benefit of the noise screen.

Acceptable Noise Levels

Acceptable noise levels differ greatly, depending on environmental surroundings, personal preferences and practical necessity. Various criteria have been proposed, from time to time, for acceptable noise levels (5) and several methods have been devised for rating them. One such method is based on a so-called "Speech Interference Level" (SIL). The speech interference level of a noise is the arithmetic average, in decibels, of the sound pressure levels of the noise in the three standard octave bands having center frequencies of 500, 1,000 and 2,000 Hz (cycles per second). Speech interference levels below 60 dB will permit normal conversation at a distance of 3 feet but the voice must be raised moderately at a distance of 6 feet.

A second method (6) is based on a set of numbered noise rating curves, which emphasize the greater sensitivity of the ear to higher frequencies. The noise is first analyzed in octave band widths, then the decibel level of each band is plotted on the curves, to give the octave band spectrum. A noise rating number "N" is picked from the curve which lies just above the octave band spectrum. This number is then corrected by reference to tables to adjust to specific circumstances.

Other criteria for acceptable noise levels have been determined by personal interview surveys to meet special requirements. One such study (20) has indicated a traffic noise level of about 68 dBA to be the dividing line between "disturbing" or "not disturbing," as perceived by the majority of homeowners.

Persons accustomed to living and working in relatively quiet surroundings would undoubtedly consider 68 dBA to be unacceptable. Speech interference levels below 50 dB (corresponding to about

57 dBA) are generally considered desirable for residential districts, especially during the evening hours. We believe that the speech interference level, because of its ease of interpretation, is preferable to other more complex criteria for use in the present study.

The dBA unit, which is by far the easiest to apply, is favored by many engineers for the measurement of broad band noises, such as traffic noises; the Department of Housing and Urban Development has recently adopted this unit for specifying adequate housing noise level criteria. The dBA unit, when used with adequate knowledge of its significance and limitations, will probably be quite satisfactory for most practical applications.

The relationship between sound measurement units of dBA, dB(FLAT) and SIL for the traffic noises studied (Table 2) is included for reference and application in solving illustrative problems in Appendix B.

Value of Trees as Noise Screens

The value of trees as noise screens is affected by proper placement, sufficient density and adequate tree height and belt width for each particular application. A relatively narrow belt of dense shrubs and moderately tall trees, which would be adequate for noise screening in urban residential areas, might be ineffective in rural areas where large trucks and buses were the principal noise source.

Numerical values indicating the effectiveness of trees as noise screens in a wide variety of situations may be read from the various curves in Chapter III. Sound level reductions from 5 to 8 decibels (dBA) are common for wide belts of trees. Reductions of 10 dBA are not unusual.

The subjective nature of sound complicates the process of assessing the apparent reduction in loudness based on a numerical measure, especially to one unfamiliar with acoustical terminology and measurements. Extensive experiments on individuals have indicated a reduction of 10 decibels to be approximately "half as loud." The 5 to 8 dBA reduction would, in many instances, reduce the noise level from "disturbing" to "not disturbing," particularly in the critical range of 65 to 70 dBA, where speech interference begins.

Table 2. Traffic noise level conversions, SIL, dBA, dB(FLAT).

Noise type 1			Noise type 2			Noise type 3		
SIL	dBA	dB FLAT	SIL	dBA	dB FLAT	SIL	dBA	dB FLAT
43	50	53	45	50	56	45	50	53
53	60	63	54	60	65	55	60	65
62	70	72	66	70	76	65	70	73
73	80	83	75	80	86	75	80	83
83	90	94	84	90	96	84	90	92

Special surface conditions, previously described, are an integral part of the evaluation. When "soft" tree-shrub-grass combinations are compared to "hard" pavement surfaces, the reduction is considerably greater, often in the 8 to 12 dBA range and occasionally as high as 15 dBA, or approximately one-third as loud.

It is apparent that the value of trees as noise screens depends somewhat on the type of surface over which the sound passes, and that precise separation of the combined effects of trees and accompanying soft ground cover is not an easy matter. Wide belts of trees are seldom found in the center of large paved areas. Nevertheless, attenuations from 8 to 12 dBA can be attained by the use of trees alone, compared with sound projected over a hard surface.

The present study did not involve testing of specific trees and shrubs for their effectiveness in reducing noise. Based on a knowledge of tree and shrub characteristics and on results obtained with species in the plantings tested in this study, however, we have listed evergreen trees and shrubs that should be suitable for year-round noise screening and that have a relatively wide range of adaptability (Table 3).

Additional trees and shrubs may be selected (34, 35, 36, 37 and 38). Before selecting materials, however, consult with local nurserymen, extension horticulturists and landscape architects for specific varieties and combinations of plant materials to be used in a given locality.

Limitations on the Use of Trees and Shrubs as Noise Screens

The physical nature of sound and the extreme sensitivity of the human hearing mechanism restrict the ability of trees and shrubs to reduce noise. Total elimination of sound would require that a noise source be sealed off by an airtight enclosure. Although the loudness of a sound may be reduced, it can seldom be brought below the threshold of hearing. Thus any form of natural vegetation, no matter how extensive, is incapable of "eliminating" all sound; we must concern ourselves with how much or what part of a noise can be eliminated.

Practical considerations often limit the use of trees and shrubs as noise screens. It has been mentioned earlier that it is more desirable to place trees close to a noise source as opposed to close to a receiver, and that belts of 75 to 100 foot width are desirable. Therefore, right-of-way or land use requirements may prevent effective noise screening.

Ground forms frequently limit the use of trees as noise screens. Where traffic on elevated highways is visible over the tops of the trees for example, the sound merely passes over the trees, with relatively minor absorption from below.

Natural causes also limit the effectiveness of trees in noise reduction. Very thinly planted trees, or trees in poor condition due to

Table 3. Evergreen trees and shrubs that should be suitable for year-round noise screening and that have a relatively wide range of adaptability.

Common name ^a	Regions of best adaptability
Tall	
Fir	
white	Nationwide
Veitch's silver, Nikko	East
balsam	Midwest, North, Northeast
corkbark	Midwest, Southwest, Southeast
Fraser	East, Southeast
California red	West
Spanish	West Coast
Cedar	
atlas	West Coast
deodar, Cedar of Lebanon	West Coast, South, Gulf Coast
Port-Orford cedar	West Coast, South, Southeast
Arizona cypress	Southwest, South, Southeast
Spruce	
Norway, white Serbian,	Nationwide (best in north)
Oriental, blue	Nationwide (best in north)
Pine	
western white	West
ponderosa	West, Midwest
Scotch	Nationwide (best in north)
red	East, North
Austrian, eastern white	Midwest, East
Monterey	California Coast
Douglas fir	Nationwide (except South)
Giant sequoia, Redwood	West Coast
Western redcedar	West
Hemlock	
eastern	East, Southeast
Carolina	East Coast, Southeast, South
western	West Coast
Medium	
Juniper (upright)	
eastern redcedar and varieties	East of Rocky Mountains
Rocky Mountain and varieties	West of Rocky Mountains, Midwest
Chinese and varieties	Nationwide
Grecian	Nationwide
Irish	Nationwide (best in north)
Swedish	Nationwide (best in north)
Yew	
Japanese and varieties	Nationwide
English	Nationwide (best in east)
Arborvitae	
American and varieties	Nationwide (best in north, northeast)
Oriental and varieties	South
Short	
Juniper	
Chinese (Pfitzer) and others	Nationwide
Mugo pine	Nationwide

Table 3 (Continued).

Common name ^a	Regions of best adaptability
Arborvitae	Nationwide
American and varieties	Nationwide
Oriental and varieties	
Yew	Nationwide
Japanese and varieties	
Some Broad-leaved Evergreens	Nationwide (best in south half)
Pyracantha	Nationwide
Euonymus	South
Privet	

^a See Appendix C for scientific nomenclature

neglect or unfavorable growth environment, offer little resistance to the passage of sound, even though they serve as a partial visual screen. This effect is illustrated in Fig. 43 where the reduction of noise level by a section of a belt in good condition (dense trees) is compared with a section of the same belt in rather poor condition (thin trees).

Although the limitations are formidable, trees and shrubs can effectively reduce noise levels in many applications. They are not applicable in all situations, however; a knowledge of out-of-door sound propagation, aided by experience, is necessary to make valid judgments on the use of trees and shrubs for noise reduction.

Observations and Conclusions from the Statistical Analysis

One purpose of a multiple regression analysis is to examine the relationship among a single criterion (dependent) variable and two or more predictor (independent) variables. In this case the sound level is the criterion and tree height, belt width, wind velocity and distance behind belt are predictor variables. The analysis provides a test as to whether the independent variables can significantly predict the value of the dependent variable and, if they can, the analysis also provides an equation for predicting the unknown dependent value from a new set of independent values.

In the mathematical process a summary statistic called the multiple correlation coefficient (R) is usually computed. The coefficient provides an estimate of the proportion of the total variance in the dependent variable that can be predicted from the known variance in the independent variables, and is a measure of the overall effectiveness of the multiple regression. The standard error of estimate of a regressed score is also computed, as in an F test of the statistical significance of R . This latter statistic indicates whether the independent variables utilized have enough explanatory power to statistically predict the dependent variable.

Details of the computational method are well known to statisticians and are, therefore, omitted from the discussion. The order of entry

Table 4. Order of entry of variables in the analysis.

Tree type	Sound type	Variables analyzed and sequence of entry			
		First entry	Second entry	Third entry	Fourth entry
D	1 (Truck)	X(4)	X(2)	X(3)	X(1)
	2 (Autos)	X(4)	X(2)	X(3)	X(1)
	3 (Bus Stop)	X(4)	X(2)	X(3)	X(1)
CD	1 (Truck)	X(4)	X(2)	X(3)	-----
	2 (Autos)	X(4)	X(2)	X(3)	-----
	3 (Bus Stop)	X(4)	X(2)	X(3)	-----
C	1 (Truck)	X(4)	X(1)	X(3)	X(2)
	2 (Autos)	X(4)	X(1)	X(3)	X(2)
	3 (Bus Stop)	X(4)	X(1)	X(3)	X(2)

Tree Type D (Deciduous)

Tree Type CD (Mixed Conifer Deciduous)

Tree Type C (Conifer)

X(1) = tree height (Range: 17 to 60 feet)

X(2) = belt width (Range: 45 to 120 feet)

X(3) = wind speed (Range: -5 to +12 mph)

X(4) = distance from rear edge of belt to observer (Range: zero to 300 feet)

of the variables in the analysis has been included in Table 4 for the benefit of those persons who may wish to examine the statistical significance of the test results. One might conclude from the analysis that, in most instances, all variables considered do affect the result.

The prediction equations listed in Chapter III (Table 1) were based on assumed linear relationships, for simplification, and are not expected to give precise values. Numerical results derived from the equations varied up to 5 dBA from the experimental values, at 200 and 300 foot distances behind the tree belt. Examination of the equations also discloses differences of sign on certain terms, which, when considered independently, would give inconsistent results under certain maximizing conditions. For these reasons the equations should not be applied to belts differing in size, composition and proportion from those used in the study.

Also, the constant term of the equations implies that they are limited in application to projected sound levels used in the experiments. It is therefore recommended that they be used for first approximations and that equations for sound type 1 (truck noise), which was studied more extensively, be used in preference to the other two. The use of the experimental "tree curves" found in Chaptr III is preferred when accurate results are desired.

CHAPTER V—RECOMMENDATIONS

Current Applications

1. To reduce noise from high-speed car and truck traffic in rural areas, plant 65- to 100-foot-wide belts of trees and shrubs, with the edge of the belt within 50 to 80 feet of the center of the nearest traffic lane. Center tree rows should be at least 45 feet tall (See Table 3 for species recommendations). Where right-of-way width is large, as on certain sections of Interstate highways, several rows of trees and shrubs may be planted, to reduce noise levels at adjacent property.
2. To reduce noise from moderate-speed car traffic in urban areas, where tire-roadway interaction is the principal cause of noise, plant 20- to 50-foot-wide belts of trees and shrubs, with the edge of the belt from 20 to 50 feet from the center of the nearest traffic lane. Use shrubs 6 to 8 feet tall next to the traffic lane, with backup rows of trees 15 to 30 feet tall (see Table 3 for species recommendations).
3. Trees and shrubs should be planted close to the noise source, as opposed to close to the protected area, for optimum results.
4. Where possible, use taller varieties of trees which have dense foliage and relatively uniform vertical foliage distribution (or combinations of shorter shrubs and taller trees to give this effect). Where the use of tall trees is restricted, use combinations of shorter shrubs and tall grass or similar soft ground cover, as opposed to paving, crushed rock or gravel surfaces.
5. Trees and shrubs should be planted as close together as practical, to form a continuous, dense barrier. The spacing should conform to established local practices for each species.
6. Where year-round noise screening is desired, evergreens, or deciduous varieties which retain their leaves throughout most of the year, are recommended.
7. The belt should be approximately twice as long as the distance from the noise source to the receiver and when used as a noise screen parallel to a roadway, should extend equal distances along the roadway on both sides of the protected area.
8. During daytime at recreational sites and other rural areas where small groups might wish to converse normally, the speech interference level (SIL) should be held to 55 to 60 dB, which corresponds to approximately 62 to 68 dBA. An SIL of 40 to 48 dB, corresponding to approximately 47 to 55 dBA, is recommended during night hours.
9. During the day in residential areas an SIL of 48 to 53 dB, corresponding approximately to 55 to 60 dBA, is desirable although

values up to 65 dBA might be tolerated for short periods of time. An SIL of 43 to 50 dB, corresponding approximately to 50 to 57 dBA, is recommended during evening hours.

Future Study

1. Long-term studies, using plantings specifically designed for noise screening, where tree species and ground surface characteristics could be under direct control of the experimenter, offer the best opportunity for developing the full potential of trees and shrubs as noise screens. Property must be available for a period of several years for this purpose.

2. Studies with an objective of finding short-term solutions to the noise problem. This might involve combinations of trees, shrubs, ground cover and land forms, or other solid barriers, and could result in recommendations for almost immediate partial relief, with later permanent solution to the noise problem as the trees matured.

3. Studies for limited distance noise screening, where distance from noise source to protected area is small, as in the case of urban property, and where wide belts of trees are not feasible.

4. Extended studies of trees, shrubs and other vegetation in their ability to absorb sound, when compared to propagation over hard surfaces, such as pavement and bare earth.

APPENDIX A

Glossary of Technical Terms

- Attenuation — A reduction in value, often applied to measurements of sound and electricity.
- Decibel (abbreviated dB) — A logarithmic unit which indicates the ratio between two quantities, commonly electrical or sound energy levels or pressure levels. (See Sound Pressure Level.)
- dBA — A "weighted" measure of sound pressure level which provides relatively high correlation with subjective estimates of loudness of certain noises. (See Sound Level.)
- Free Sound Field — A field in a uniform medium surrounding a sound source, which is relatively free from boundary effects (echo, etc.).

- Frequency** — The time rate of repetition of a periodic phenomenon, having units of cycles per second (Hz). In sound control measurements variations of air pressure from 20 Hz to 15,000 Hz adequately represent the audible range.
- Level** — A physical measurement of a quantity referred to a similar reference quantity (usually lower in value). In acoustics, sound power level and sound pressure level are the usual levels encountered.
- Loudness** — The intensive attribute of an auditory sensation; a subjective quantity, dependent on frequency and pressure, and ranging from soft to loud. (See Sone and Phon.)
- Microbar** — A unit of pressure equal to 1 millionth of the standard atmospheric pressure, also equal to one dyne per square centimeter.
- Noise** — Any unwanted sound, usually an erratic random oscillation, also applied to electric waves.
- Noise Level** — A degradation of sound level, used where disagreeable sound (noise) is being considered.
- Octave** — An interval between two pure tones or oscillations having a frequency ratio of two.
- Octave Band** — Segment of the audio spectrum having a width of one octave. For convenience of analysis ten standard octave bands having geometric mean frequencies of 31.5, 63, 125, 250, 500, 1000, 2000, 4000, 8000, 16,000 Hz are often used.
- Phon** — The unit of loudness level. (See Loudness, Level)
- Sone** — The unit of loudness — One sone corresponds to a 1,000 Hz tone of 40 dB intensity. Any sound that is judged to be n times that of this one-sone tone is n sones. Sones are related to Phons through the expression
- $$S = 2^{(P - 40)/10}$$
- Sound** — An oscillation in pressure, particle displacement, velocity, etc., in an elastic medium capable of affecting the hearing mechanism, in the ordinary sense.

Sound Level — A weighted sound pressure level obtained by tailoring the response characteristics of Sound Level Meters to meet certain criteria, for example: dBA is the A-scale weighted sound pressure level, and dBC is the C-scale weighted sound pressure level (essentially flat or uncorrected in the audio range). Scale characteristics are specified by the American Standards Association.

Sound Pressure Level (SPL) — A measure of the rms sound pressure relative to an arbitrary reference pressure approximating the threshold of hearing. Definition by equation is

$$\text{SPL} = 20 \log (P/P_0) \text{ (decibels)}$$

where P_0 = reference sound pressure of 0.0002 dynes per sq cm (microbars)

P = measured sound pressure

Speech Interference Level (SIL) — The average, in decibels, of the sound pressure levels in the octave bands which contain most of the speech frequencies, i.e., the 500, 1000 and 2000 Hz unit frequency bands.

Concepts Relating the Decibel to the Physical Senses

The audible range of sound pressures extends from approximately zero decibels at the threshold of audibility to 130 decibels at the threshold of feeling.

The majority of ordinary sounds we hear fall in the range of about 25 decibels (a quiet library) to about 80 decibels (a very noisy street corner).

A difference of one decibel is the smallest change in loudness which can be easily detected by the ear.

An increase of 10 decibels corresponds to approximately doubling the apparent loudness of a sound for most of the audible range.

APPENDIX B

Illustrative Solved Problems

Five solved problems are offered to illustrate how the material in this publication may be used in a practical manner. The examples are by no means comprehensive, as many other applications are likely to be found.

The first two problems are hypothetical but represent situations which are likely to occur frequently. The last three are simplifications of actual problems.

Problem 1

A moderate-cost housing development is to be built adjacent to a freeway, on level terrain; trees and shrubs are needed as a protective noise screen. A clear space of at least 100 feet between house and trees is desired. Where should the trees be placed, what species should be used and what width belt is necessary to provide optimum results?

Analysis and Solution: An acceptable noise level is based on the speech interference level (SIL) and recommendations in Chapter V. A level of 50 SIL is suggested as a compromise between maximum daytime and minimum nighttime levels for the type of housing planned. Referring to the "SIL" chart (Table 2) this corresponds to a level of 57 dBA for trucks, which are likely to constitute the major part of the noise disturbance. Reference to several graphs (Figs. 3, 7 and 18) indicates that a 450-foot distance between highway and residence is necessary to achieve the desired result. Assuming the belt is 50 feet from the freeway and that a 100-foot-wide planting is selected, the clear space of 100 feet between house and trees would be readily available.

An alternate solution is also offered. Based on a demonstrated attenuation of 5 to 8 dBA per 100 feet of belt width, a 200-foot-wide belt could be planted. Then, reference to the graphs shows that the houses could be located approximately 350 feet from the highway, a saving of 100 feet. The species selected should be mainly evergreens. However, since outdoor activity would likely be decreased in the winter, a mixture of deciduous and evergreen trees would be satisfactory, with the evergreens being planted on the front and back of the belt and the deciduous trees toward the center. Spacing of the trees should be as close as practical but conforming to local recommendations.

Problem 2

An outdoor recreational site and picnic area is to be established adjacent to a major highway, where large trucks are a significant part of the traffic. A tree planting must be designed to provide noise protection satisfactory for daytime use. How close to the highway may the site be placed and where in relation to the highway should the noise screen be located?

Analysis and Solution: An acceptable noise level based on recommendations in Chapter V for daytime recreational areas is 55 to 60 SIL. A level of 57 (SIL) is suggested for the type of activity anticipated. Referring to the "SIL Chart" (Table 2) the corresponding level is 65 dBA. Reference to several graphs (Figs. 10, 12 and 15) indicates that locating the site 250 to 300 feet from the noise source would provide the desired results. A distance for the tree planting of 50 feet from

the highway is chosen as most efficient and within acceptable safety standards. A mixture of evergreens and deciduous trees is suggested for the site, since its principal use will be during months of the year when deciduous trees have foliage. Dense plantings are also recommended in accordance with accepted local standards for tree spacing.

Problem 3

Heavy arterial traffic has caused considerable disturbance at a residential property, especially in the back yard area, which is adjacent to the street. What type and location of plantings are recommended to serve as a noise screen?

Analysis and Solution: Since the noise is largely due to tire-roadway interaction on passenger cars, with no large truck traffic, a relatively narrow belt of shrubs and trees of medium height should considerably reduce the noise level. A row of dense shrubs—juniper or cotoneaster—backed up by one or two rows of 10- to 15-foot-high evergreens and a third row of fast-growing poplars or cottonwoods will make a belt with a total depth of 20 to 30 feet at maturity. The nearest planting should be within 50 feet of the street. Reference to Fig. 40 indicates a level of 60 to 65 dBA (corresponding to 53 to 57 SIL) can be attained at a distance of 50 feet behind the belt. Although this value is higher than recommended for ideal conditions (below 50 SIL for outdoor residential levels) the situation is severe and not a great deal more can be accomplished.

Problem 4

This problem illustrates the *increase* in noise level accompanying the removal of a belt of trees.

A highway widening project has eliminated a wide belt of trees adjacent to a small animal farm. The project also changed the ground configuration and increased traffic speed and noise. Because the animals are quite sensitive to noise, their productivity decreased. What can be done to reduce the noise level at the animal houses?

Analysis and Solution: Construction of new housing for the animals was suggested. The location recommended was based on the probable increase of the sound level due to the removal of 70 feet of dense plantings of large deciduous trees and a 15 m.p.h. increase in speed limit, plus a slight amount for ground form changes. From the graph of Fig. 7 for a belt of comparable size, a 5 to 8 dBA attenuation was indicated. Adding 2 to 4 dBA for the increased speed limit (determined by a separate test) and the ground form change, the probable increase was placed at 7 to 12 dBA. Referring to the upper curves on this same graph it is seen that, in the 200-400 foot range, a 150- to 250-foot distance is required to offset this increase. It was

therefore recommended that the animal houses be moved 200 feet farther from the highway.

Problem 5

A truck stop established within 800 to 1,000 feet of a residential area caused an increase in the noise level. What steps are recommended to reduce the noise level with trees and shrubs?

Analysis and Solution: The sound level at this distance is probably relatively low the majority of the time but could become annoying during evening hours, when background levels are lower and atmospheric conditions favor transmission of sound. The recommended solution is to plant a 75-foot-wide belt of trees between the residential area and the truck stop, with the trees as close as possible to the truck stop.

Evergreens of a species suited to the locality should be planted, with minimum spacing recommended for the species selected. Maintain a soft ground cover of taller grasses or other vegetation between the truck stop and residential area. For an immediate solution, a temporary solid wall high enough to completely screen the trucks from view appears to be the only possibility. The wall, to be most effective, should be close to the noise source, and could be removed when the trees had reached a height of 15 to 20 feet.

Fig. 7 indicates that an excess attenuation of approximately 7.5 dBA is attainable at a 400-foot distance and that this attenuation shows no tendency to decrease at greater distances.

Expected results would be a substantial decrease in the noise level except during occasional periods of unfavorable atmospheric conditions. The noise would still be audible outdoors the majority of the time, however, because of its high intensity, but should not be objectionable to most persons.

APPENDIX C

Common and Scientific Names of Plants Mentioned

Apricot
Arborvitae, American
(northern white cedar)*
Arborvitae, oriental*
Ash, green

Catalpa, northern
Cedar, atlas
Cedar, deodar

Prunus armeniaca L.
Thuja occidentalis L.
Thuja orientalis L.
Fraxinus pennsylvanica Marsh.

Catalpa speciosa Warder
Cedrus atlantica Manetti
Cedrus deodara (Roxburgh)
Loudon

Cedar, of Lebanon	<i>Cedrus libani</i> Loudon
Cedar, Japanese	<i>Cryptomeria japonica</i> (Linneaus fil.) Don.
Cedar, Port-Orford	<i>Chamaecyparis lawsoniana</i> (A. Murr.) Parl.
Cottonwood, plains	<i>Populus deltoides</i> var. <i>occidentalis</i> Rydb.
Cotoneaster	<i>Cotoneaster</i> sp. B. ehrh.
Cypress, Arizona	<i>Cupressus arizonica</i> Greene
Douglas fir	<i>Pseudotsuga menziesii</i> (Mirb.) Franco
Elm, American	<i>Ulmus americana</i> L.
Elm, Siberian	<i>Ulmus pumila</i> L.
Euonymus	<i>Euonymus</i> sp. L.
Fir, balsam	<i>Abies balsamea</i> (L.) Mill.
Fir, California red	<i>Abies magnifica</i> A. Murr.
Fir, corkbark	<i>Abies lasiocarpa</i> var. <i>arizonica</i> (Merriam) Lemm.
Fir, Fraser	<i>Abies fraseri</i> (Pursh) Poir.
Fir, Nikko	<i>Abies homolepis</i> Siebold & Zuccarini
Fir, Spanish	<i>Abies pinsapo</i> Boissier
Fir, Veitch's silver	<i>Abies veitchii</i> Lindley
Fir, white	<i>Abies concolor</i> (Gord. & Glend.) Lindl.
Hackberry	<i>Celtis occidentalis</i> L.
Hemlock, Carolina	<i>Tsuga caroliniana</i> Engelm.
Hemlock, eastern	<i>Tsuga canadensis</i> (L.) Carr.
Hemlock, western	<i>Tsuga heterophylla</i> (Raf.) Sarg.
Honey locust	<i>Gleditsia triacanthos</i> L.
Juniper, Chinese ^a	<i>Juniperus chinensis</i> L.
Juniper, eastern (redcedar) ^a	<i>Juniperus virginiana</i> L.
Juniper, Grecian	<i>Juniperus excelsa</i> Bieberstein
Juniper, Irish	<i>Juniperus communis</i> var. <i>ibernica</i> (Loddiges) Gordon
Juniper, Rocky Mountain ^a	<i>Juniperus scopulorum</i> Sarg.
Juniper, Swedish	<i>Juniperus communis</i> var. <i>suecica</i> Aiton.
Mulberry	<i>Morus alba</i> var. <i>tatarica</i> Loud.
Pine, Austrian	<i>Pinus nigra</i> Arnold
Pine, eastern white	<i>Pinus strobus</i> L.
Pine, Monterey	<i>Pinus radiata</i> D. Don
Pine, mugo (Swiss mountain)	<i>Pinus mugo</i> Turra
Pine, ponderosa	<i>Pinus ponderosa</i> Laws.
Pine, red	<i>Pinus resinosa</i> Ait.
Pine, Scotch	<i>Pinus sylvestris</i> L.
Pine, western white	<i>Pinus monticola</i> Dougl.

Privet
Pyracantha (Firethorn)

Redcedar, western
Redwood

Russian-olive

Sequoia, giant

Spruce, blue (Colorado)

Spruce, Norway

Spruce, Oriental

Spruce, Serbian

Spruce, white

Yew, English^a

Yew, Japanese^a

Ligustrum sp. L.

Pyracantha coccinea Roem.

Thuja plicata Donn.

Sequoia sempervirens (D. Don)
Endl.

Elaeagnus angustifolia L.

Sequoiadendron giganteum
(Lindl.) Buchholz

Picea pungens Engelm.

Picea abies (L.) Karst.

Picea orientalis (L.) Carriere

Picea omorika (Panocic) Bolle.

Picea glauca (Moench) Voss

Taxus baccata L.

Taxus cuspidata Siebold &
Zuccarini

^a The type and horticultural varieties and cultivars.

APPENDIX D

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ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

SUITE 900, 1860 LINCOLN STREET
DENVER, COLORADO 80203

September 25, 1972

Ref: AWIE

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

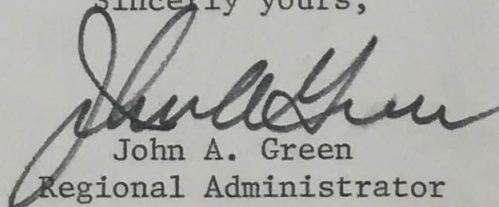
Dear Mr. Rhea:

The Environmental Protection Agency has reviewed the draft environmental impact statement for the proposed new Denver Mint. In general, the draft statement describes the project and the anticipated environmental impacts in a satisfactory manner. We suggest, however, that the third sentence of paragraph "f" on page 9 be revised to indicate that subsurface water seepages, and not process liquids, will be discharged as effluent into the South Platte River.

In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection.

We appreciate the opportunity to review this statement, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Sincerely yours,



John A. Green
Regional Administrator

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

P. O. Box 17107, Denver, Colorado 80217

September 8, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the Draft Environmental Impact Statement for Construction of the New U. S. Mint, Denver, Colorado.

The statement is well prepared and appears to adequately cover the requirements of N.E.P.A.

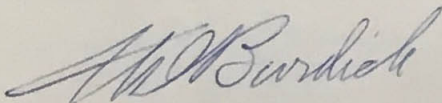
Our primary comment relates to Section 2.4, page 9 of the Statement. We believe the statement concerning pollution prevention and site protection during construction might be strengthened.

We have found that, while no laws or regulations appear to be violated, there is a serious problem in the Denver area caused by erosion from urban development sites. Because of the proposed Mint site location on the banks of the South Platte River, site erosion could degrade the River if proper protection is not afforded during construction.

In regard to the last sentence in Section 1, page 4, we bring to your attention the fact that recently a chemical company in the site area was fined through EPA action for killing fish in the South Platte River with an industrial discharge. Apparently, the fish in the South Platte are considered significant wildlife.

Thank you for the opportunity to comment.

Sincerely,



M. D. Burdick
State Conservationist





THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

September 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Unit
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for your August 7, 1972, letter to the Economic Development Administration which transmitted the draft environmental impact statement for the proposed new Denver mint. The Department of Commerce has reviewed the document and has no comment.

Sincerely,

A handwritten signature in cursive script, reading "Sidney R. Galler", is written over the typed name.

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs



DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
7410 U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

MROED-PE

12 September 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

I refer to your letter of 4 August 1972 transmitting the Draft Environmental Statement for Construction of New United States Mint - Denver, Colorado.

The draft statement appears to adequately discuss the environmental impacts of the proposed action. Your discussion of the problems involved in locating the facility in the South Platte River flood plain is well presented.

We appreciate the opportunity to comment on the subject draft statement.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "R. G. Burnett", is written over the typed name.

R. G. BURNETT, P. E.
Chief, Engineering Division



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 19th AND STOUT STREETS
DENVER, COLORADO 80202

REGION VIII

September 28, 1972

IN REPLY REFER TO:

8M

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Subject: Draft EIS, Denver Mint

Please excuse our delay in forwarding our comments on the subject statement. As you may know, we participated with GSA in the evaluation of many proposed sites in the Denver Metro area. The selected site was one of two sites which we recommended be given top consideration from the point of view of HUD's responsibility and involvement with the City and County of Denver.

In particular, we believe the selection will compliment Denver's renewal effort and assist in implementing the HUD-funded Platte River planning objectives. It is also our opinion that your statement on Page 13, Paragraph d, concerning the availability of low and moderate income housing to be accurate and significant.

Our only concern with your draft statement is on the matter of relocation benefits for those businesses and persons to be displaced from the site. As you may know, the Colorado Relocation Assistance Act of 1971 relates to Federally-assisted projects carried out by the state, or a state agency. It does not require any payment of any relocation benefits for nonfederally-assisted displacement activities. We believe that since the City and County of Denver is acting as the agent for the Bureau of the Mint, and displacement will occur after the site selection by your Bureau, the provisions and limitations of the Uniform Relocation and Property Acquisition Act of 1970, (PL-91-646), will apply as described in Section 208 of Title II of the Act.

As you may know, the Denver Urban Renewal Authority has been designated the central relocation agency in the city, and we recommend that you contact them. They should be in a position to assist you in complying with the requirements of Section 210 of Title II of the Act.

Thank you for the opportunity to review and comment on your Draft EIS.

Sincerely,

for G Keith Brundage
 Michael T. Kastanek
 Assistant Regional Administrator
 Community Planning and Management

Mr. [illegible]
 [illegible]
 [illegible]
 [illegible]
 [illegible]
 [illegible]

Dear Mr. [illegible]:

Receipt of the Draft Environmental Impact Statement dated [illegible] 1978, for the proposed new Denver site is acknowledged by the Region of Housing and Urban Development.

My comments to the HUD Central Office will be submitted separately to our Regional Office in Denver and [illegible] to a single EIS in [illegible] from that office.

Sincerely,

John P. [illegible]
 [illegible]
 [illegible]



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D. C. 20410

August 21, 1972

OFFICE OF THE ASSISTANT SECRETARY FOR
COMMUNITY PLANNING AND MANAGEMENT

Office of Community & Environmental Standards

IN REPLY REFER TO:

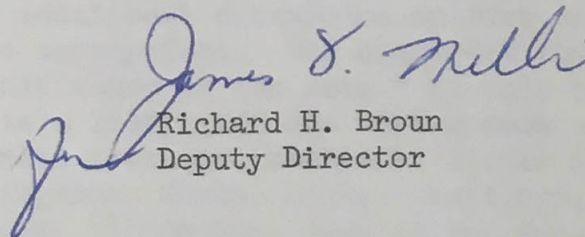
Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint - Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Receipt of the Draft Environmental Impact Statement dated August 4, 1972, for the proposed new Denver mint is acknowledged by the Department of Housing and Urban Development.

Any comments by the HUD Central Office will be communicated directly to our Regional Office in Denver for inclusion in a single HUD response from that office.

Sincerely,


Richard H. Broun
Deputy Director



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

E3053

ER-72/959

SEP 19 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in reply to your request of August 4, to the Department of the Interior for comments on the draft environmental statement for the new Denver Mint, Denver, Colorado.

Our general comment is that the statement appears to adequately discuss and define the environment and impacts thereon of the proposed new mint. However, some additional discussion on fish and wildlife values would appear to be appropriate. The statement that "There is no known wildlife of significance in the area." is only partially correct. The following is a listing of the more common species of the immediate site: skunks, raccoons, muskrats, Norway rats, mice, feral house cats, feral pigeons, doves, ducks, starlings, English sparrows and several species of non-game fish in and adjacent to the South Platte River which runs past the proposed Mint site. Several of the above-mentioned species are, at times, found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. This aspect of interaction between man and wildlife should be considered in greater detail.

The new Mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change. For example, construction of the Mint, assuming proper design, will destroy or greatly reduce the rat population of the immediate area. Aesthetic improvement may also result.

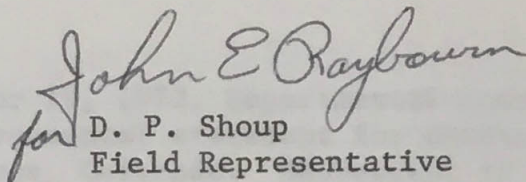
Our conclusions are that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area.

Mr. Frank W. Rhea
Page 2

Additionally, we believe the conclusion regarding the Rocky Mountain Arsenal as a possible alternative site, under "Alternatives to the Proposed Action" should be substantiated. For example, use of the Arsenal would provide a site without cost to the government, would not entail relocation of houses, businesses and people, and would not have as adverse an impact upon traffic patterns and congestion. Employees and tourist access to such a site would be excellent via three interstate highways, Stapleton Airport, and several railroad lines. We suggest the alternative section discuss the environment of the Arsenal and the impact of constructing the Mint thereon.

We appreciate the opportunity to comment.

Sincerely yours,


for D. P. Shoup
Field Representative



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

ER 72/959

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

September 27, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

By letter dated September 19, 1972, Departmental comments were provided on the draft environmental statement for construction of the United States Mint, Denver, Colorado. Subsequent to that date, the enclosed comments were received from the Bureau of Mines and the U.S. Geological Survey.

These comments are forwarded for your information.

Sincerely yours,

John E. Raybourn
for D. P. Shoup
Field Representative

Enclosures 2



United States Department of the Interior

BUREAU OF MINES

BUILDING 20, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

Office of
Chief

Intermountain Field Operation Center

August 31, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Ave.
Denver, Colo. 80204

Dear Mr. Rhea:

Thank you for your letter of August 4 requesting comments on the draft environmental impact statement for the new United States Mint that is proposed for construction along the west bank of the South Platte River in Denver, Colo.

Our observations relative to the proposed facility follow:

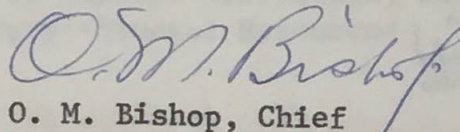
1. The proposed construction would have no direct effects, either adverse or beneficial, on mineral resources.
2. Implementation of the project should provide an appropriate land use of the South Platte River location and should bring about an enhancement of the general area.
3. An adverse feature of the project is the fact that construction would be on a flood plain. The general conclusion, however, is that the new mint could be constructed on the site with an extremely low flood-risk factor, providing the Chatfield Dam, upstream on the South Platte River, is completed on schedule.

Insofar as our interests and responsibilities are concerned, the Intermountain Field Operation Center finds no objection to the proposed construction. Selection of the South Platte River location as a site for the proposed new Denver Mint appears to be a good choice.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D. C. 20540

Our field-level comments are informal and are provided as a service;
they do not constitute a formal review by the Bureau of Mines.

Sincerely yours,

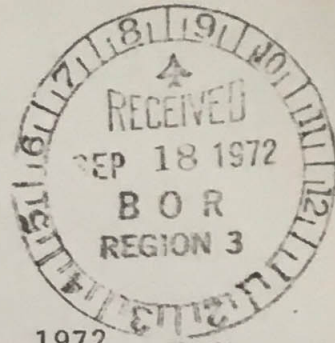


O. M. Bishop, Chief
Intermountain Field Operation Center

cc: D. P. Shoup



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D.C. 20240



ER-72/959

September 7, 1972

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver, Colorado
Through: Assistant Secretary--Mineral Resources *Wilo*
From: Director, Bureau of Mines *SEP 14 1972*
Subject: Draft environmental statement, Bureau of the Mint, construction
of United States Mint, Denver, Colorado

The draft environmental statement for construction of the proposed United States Mint, Denver, Colorado, has been reviewed. The new mint would be constructed on a 30-acre site on the west bank of the South Platte River in the City of Denver between the river and the Valley Highway (I-25) from about Eighteenth Avenue to Speer Boulevard. Proposed construction would include about 700,000 square feet of building space, parking areas, paved vehicular maneuvering area, installation of utilities, and landscaping. The South Platte River site was selected as the most favorable of several considered.

The proposed construction would have no direct effects, adverse or beneficial, on mineral resources. Although not in our area of concern, we believe the site to be a good choice because redevelopment would help bring about enhancement of the general area.

The environmental statement discusses a potential adverse feature of the site in that its location on the South Platte River flood plain could have serious implications if the upstream Chatfield Dam is not completed on schedule.

Elbert Z. Cobb
Director

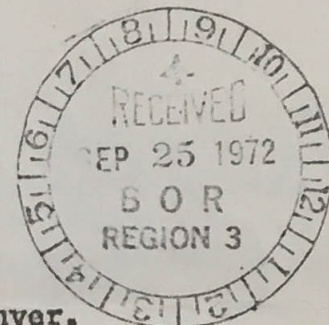


United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

ICE OF THE DIRECTOR

ER-72/959



Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver, Colorado

From: Director, Geological Survey

Subject: Review of draft environmental statement on new Denver Mint, Denver, Colorado

We have reviewed the subject draft environmental statement as requested in a memorandum of August 10 from the Director, Office of Environmental Project Review. Our comments are as follows:

The third paragraph on page 4 contains a statement that the bedrock is Pierre Shale. The bedrock of the area is not Pierre Shale, but rather is Upper Dawson Formation.

In reference to sub-paragraph f, page 9, it is very likely that basement areas in the building will require special protection from seasonally high water-table conditions.

The assessment of the flood risk factor contained in sub-paragraph g, page 9, seems to be reasonable, especially considering the soon-to-be completed Chatfield Dam.

~~Noting~~ Director

cc: Director, PEP, (advance) ✓
Gen. Files
Dir. Chron.
Mr. Coulter, GD
Mr. Davis, WRD

HGStewart:src:9/12/72



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION EIGHT
BUILDING 40, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

October 11, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

IN REPLY REFER TO:

Draft Environmental
Impact Statement
Construction of New
United States Mint
(Denver Mint)

Dear Mr. Rhea:

This is in response to your letter of August 4, 1972, in which you requested Federal Highway Administration review and comments on the Draft Environmental Impact Statement for the proposed new Denver Mint. In accordance with our review procedures, this letter will serve as the consolidated response of the Colorado Division Office and the Region 8 Office.

Except for a couple of minor items our comments will be directed mainly toward the impact upon the highway system.

Appendix A map, although supplemented with Appendix B aerial photo, is a rather outdated version which does not portray a complete picture of the local street system in the vicinity of the proposed project.

The statement, page 6 paragraph 1e, should be deleted as the widening of I 25 through the subject area has been accomplished.

At the top of page 6, (Section 2.2) the statement is made that traffic generated by the proposed project is "relatively negligible when measured against the 105,800 vehicles using the Valley Highway on an average weekday in 1971." The 105,800 vehicles is an accumulation of "relatively negligible" traffic generations, which if allowed to continue will result in the continued deterioration of traffic service. No traffic generator located in this corridor is negligible.

Mr. Frank W. Rhea
October 11, 1972
Page Two

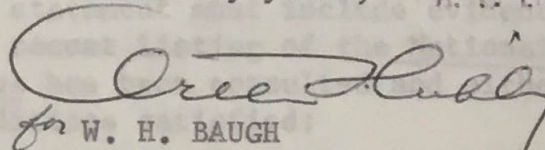
The matter of transportation deficiencies in the corridor of the Valley Highway has been recognized by the Colorado Department of Highways and the Federal Highway Administration and as a result preliminary studies have been programmed to further improve the corridor. We are pleased to note the recognition given in the environmental statement to these deficiencies and of the need for coordination for their resolution. We are particularly concerned as land necessary for the correction of deficiencies is not available within the existing right of way.

One of the Valley Highway's primary inadequacies is the lack of frontage or collector-distributor roads from Colfax Avenue north to the W. 38th Avenue interchange. To correct this will involve revision, elimination or relocation of the closely spaced interchanges at Speer Boulevard, W. 23rd Avenue and W. 19th Avenue. The Colorado Department of Highways has recently submitted a program for project FI 025-2(9) which includes funds for the consideration of environmental impacts and for preliminary engineering studies in this area. Another recently submitted program is for project M 7252(001) Blake-Market Streets, Federal Boulevard to 23rd Street.

With the developments proposed for the subject area and the proximate timing of the Denver Mint proposal and the transportation studies and subsequent proposals, it becomes apparent that joint-development and multiple-use considerations are necessary to assure the most functional project with the least environmental impact.

We welcome the opportunity to comment on the proposal and statement. We offer our continued cooperation and assistance in the development and preparation of the final environmental statement.

Sincerely yours, A. E. LIBBY



for W. H. BAUGH
Regional Federal Highway Administrator

cc: Colorado Division - 1
TEU (10) - 1
Secretarial Representative - Region- 1
CEQ - 5

ADVISORY COUNCIL
ON
HISTORIC PRESERVATION

WASHINGTON, D.C. 20240

October 5, 1972

Mr. Robert R. Fredlund
Director, Administrative Programs
Department of the Treasury
Washington, D. C. 20220

Dear Mr. Fredlund:

Thank you for the copy of the draft environmental statement prepared by the Bureau of the Mint, Department of the Treasury, for the construction of the New United States Mint - Denver, Colorado. This draft statement was enclosed with your letter of August 28, 1972, as an example of additional materials detailing the Treasury's policy vis-a-vis historic preservation.

In order to alert you to our approach to the review of such statements, and because the present Mint is listed in the National Register of Historic Places, we thought it would be both useful and appropriate for us to give you our informal comments on the statement. Ms. Penny Lianos of your office indicated that you would be interested in such a response.

We appreciate the concern expressed in your letter and in the draft statement for the fate of the present Mint. However, the section referring to the Mint is the only mention of historic resources in the draft statement. There is no mention of the impact of the new Mint on historic resources. The statement would therefore be considered inadequate were it under our formal review. The Council staff would respond by asking for additional information from your agency indicating:

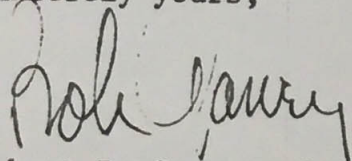
- a. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470(f)). The draft environmental statement must include evidence indicating that the most recent listing of the National Register of Historic Places has been consulted and either of the following conditions satisfied:

1. If no National Register property is affected by the project, a section detailing this determination must appear in the draft environmental statement.

2. If a National Register property is affected by the project, the environmental statement must contain an account of steps taken in compliance with Section 106 and a comprehensive discussion of the contemplated effects on the National Register property. (Procedures for compliance with Section 106 are detailed in the Federal Register of March 15, 1972, p. 5430.)
- > b. Compliance with Executive Order 11593 of May 13, 1972.
- c. That a comprehensive interdisciplinary study has been made of all archeological, historical, architectural and cultural resources extant in the proposed project area; the effects, if any, on these resources; and an account of steps taken to assure their preservation and enhancement.
- d. Contact with the Historic Preservation Officer for the State or Territory involved. In order to insure as comprehensive a review of historical, cultural, archeological, and architectural resources as possible, the Advisory Council would suggest that the draft environmental statement contain a copy of this officer's comments concerning the effect of the undertaking upon the resources listed in c), including properties of historic value not listed on the National Register.

We appreciate this opportunity to look at this draft statement as an example of your agency's policy in this area. We hope that our comments will be useful as the Mint statement goes into final form and as other statements are drafted in the future.

Sincerely yours,



Robert R. Garvey, Jr.
Executive Secretary

cc:

Dr. S.K. Stevens, 20 Center Drive, Camp Hill, Pennsylvania 17011

THE DEPARTMENT OF THE TREASURY
BUREAU OF THE MINT

October 16, 1972

COPY FOR: Mr. Rhea

FOR: Your information

RECEIVED

OCT 18 1972

OFFICE OF
SUPERINTENDENT
U. S. MINT AT DENVER

F. H. MacDonald

Room 2064

Ext. 5877

Stephen H. Hart
State Librarian

Sue Nieminen
Asst Dir Hist.
Society
892-2136

Hart
292-9200

THE DEPARTMENT OF THE TREASURY

RECEIVED

DATE 10-13-72

OCT 18 1972

TO Mr. MacDonald

OFFICE OF
SUPERINTENDENT
U. S. MINT AT DENVER

For your information.

Further enclosed is a copy of a "Checklist of Points for the Preparation of Environmental Impact Statements" issued in the Department on September 8, 1972, which provides in various sections guidance of a more detailed nature than that contained in the basic procedures. At page 3 of the Checklist the following appears as an environmental factor to be contemplated under the NEPA:

...effects of or adverse effects upon the national cultural heritage in the form of scenic beauty, wilderness areas, archaeologically or historically important buildings, objects, and sites, and archaeological

Robert R. Fredlund
Director of Administrative Programs

Room 2324

Ext. 2881

The Internal Library process which would be utilized by the Department in analyzing the impact of a proposed action on historical, archaeological, cultural and architectural resources is indicated in section 3 of the Departmental Procedure, which reads as follows:

(a) The full resources of the Department should be tapped in developing the factual and analytic information and reference sources needed in the planning. In the great majority of instances, however, the assistance of other agencies with local jurisdiction or special expertise in the particular environmental impact area should be sought. See section 3(c) above, and

AUG 28 1977

Dear Bob:

In response to your letter of August 21, I enclose a copy of procedures issued by this Department on July 30, 1971, for the preparation and coordination of environmental impact statements under the National Environmental Policy Act, which are presently effective. Consideration is being given to some amendments of the procedures, basically in accordance with suggestions made by the General Counsel of the Council on Environmental Quality in his circular memorandum of May 16, but these presumably would not affect the answer to your inquiry. The Internal Revenue Service has its own procedures, a copy of which is also enclosed.

Further enclosed is a copy of a "Checklist of Points for the Preparation of Environmental Impact Statements" issued in the Department on December 6, 1971, which provides on various matters guidance of a more detailed nature than that contained in the basic procedures. At page 5 of the Checklist the following appears as an environmental factor to be contemplated under the NEPA:

"--destruction of or adverse effects upon the national cultural heritage in the form of scenic beauty: wilderness areas, architecturally or historically important buildings, structures, and sites; and archaeological sites or deposits"

The interdisciplinary process which would be utilized by the Department in considering the impact of a proposed action on historical, archaeological, cultural and architectural resources is indicated in section 6 of the Departmental Procedures, which reads as follows:

"(a) The full resources of the Department should be tapped in developing the factual and analytic information and reference sources required in the statement. In the great majority of instances, however, the assistance of other agencies with legal jurisdiction or special expertise in the particular environmental impact area should be sought. See section 2(c) above, and

section 7 and Appendix II of the CEQ Guidelines which list the agencies to be consulted, with sublistings by legal jurisdiction or area of special expertise on environmental impacts."

Also pertinent to your inquiry is section 2(c), applicable to the initial decisions as to whether an impact statement is required, which provides:

"(c) Technical knowledge and thoughtful insight into possible environmental consequences are essential to effective screening of action decisions. If there is any doubt as to the possible environmental significance of any action, agencies with expertise in the area should be consulted. Agencies with special environmental expertise are listed in Appendix II of the CEQ Guidelines."

As you are undoubtedly aware, the CEQ Guidelines list your Council and the National Park Service as appropriate agencies to be consulted on "historic and archaeological sites," as well as the Department of Housing and Urban Development for such sites in urban areas. If one of the factors referred to in your letter appeared to be vitally involved in a matter being considered in an environmental impact statement, paragraph 6(a) would be followed through advance consultation with the appropriate agency, which in many cases would naturally be your Council. If the factor appeared to be more incidental, this Department might rest on the procedure for comment on draft environmental impact statements which appears in section 7 of the Procedures.

Regarding the third point in the catalogue contained in the attachment to your letter, I do not think there are any other general materials in this Department relevant to your inquiry. However, I would like to take this occasion to furnish you with a copy of the draft environmental impact statement which was filed with the Council on Environmental Quality on August 9 concerning the Construction of the New United States Mint - Denver, Colorado. In the filing of this statement the Department has been well aware of the special qualities of the existing Denver Mint, as is evidenced by the following sentence on page 4:

"The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver."

Although the question of the disposition of the present Mint is not necessarily involved in the determination as to the construction of the new Mint, we would welcome any comments you may have now and would, of course, intend to consult your agency at such time as a concrete decision on the existing Mint became pertinent.

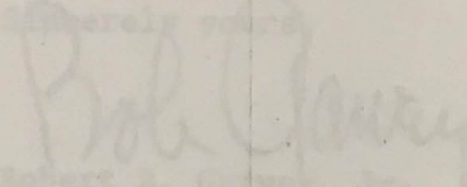
Sincerely yours,

(Sgd.) Bob Fredlund

Robert R. Fredlund
Director, Administrative Programs

Mr. Robert R. Garvey, Jr.
Executive Secretary
Advisory Council on Historic
Preservation
Suite 430
1522 K Street, N. W.
Washington, D. C. 20005

Enclosures - 4

Sincerely yours,

Robert R. Garvey, Jr.
Executive Secretary

ADVISORY COUNCIL
ON
HISTORIC PRESERVATION

WASHINGTON, D.C. 20240

August 21, 1972

Mr. Robert R. Fredlund
Director
Office of Administrative Programs
Department of the Treasury
Washington, D.C. 20220

Dear Mr. Fredlund:

In the interests of clarifying our relationship toward other agencies under the terms of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation is reviewing individual agency procedures for compliance with the National Environmental Policy Act, particularly those sections relating to the preservation of historic, archeological, architectural and cultural resources.

Our review process would be greatly facilitated if you could please send the materials listed on the attached sheet to the Council office, Suite 430, 1522 K Street, NW., Washington, D.C. 20005.

Thank you very much for your assistance. I look forward to seeing you at the Council meeting next month in Williamsburg.

Sincerely yours,

Robert R. Garvey, Jr.
Executive Secretary

Attachment

1. A copy of the Department and/or bureau(s) most recent procedures for compliance with the requirements of the National Environmental Policy Act of 1969.

2. A brief statement outlining the interdisciplinary process utilized by your agency in considering the impact on historical, archeological, cultural, and architectural resources.

3. Any additional materials detailing your agency's policy vis-a-vis historic preservation or any materials you believe relevant to our study.

Presidential Documents

Title 3—The President

EXECUTIVE ORDER 11593

Protection and Enhancement of the Cultural Environment

By virtue of the authority vested in me as President of the United States and in furtherance of the purposes and policies of the National Environmental Policy Act of 1969 (83 Stat. 852, 42 U.S.C. 4321 et seq.), the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470 et seq.), the Historic Sites Act of 1935 (49 Stat. 666, 16 U.S.C. 461 et seq.), and the Antiquities Act of 1906 (34 Stat. 225, 16 U.S.C. 431 et seq.), it is ordered as follows:

SECTION 1. *Policy.* The Federal Government shall provide leadership in preserving, restoring and maintaining the historic and cultural environment of the Nation. Agencies of the executive branch of the Government (hereinafter referred to as "Federal agencies") shall (1) administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations, (2) initiate measures necessary to direct their policies, plans and programs in such a way that federally owned sites, structures, and objects of historical, architectural or archaeological significance are preserved, restored and maintained for the inspiration and benefit of the people, and (3), in consultation with the Advisory Council on Historic Preservation (16 U.S.C. 470i), institute procedures to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures and objects of historical, architectural or archaeological significance.

SEC. 2. *Responsibilities of Federal agencies.* Consonant with the provisions of the acts cited in the first paragraph of this order, the heads of Federal agencies shall:

(a) no later than July 1, 1973, with the advice of the Secretary of the Interior, and in cooperation with the liaison officer for historic preservation for the State or territory involved, locate, inventory, and nominate to the Secretary of the Interior all sites, buildings, districts, and objects under their jurisdiction or control that appear to qualify for listing on the National Register of Historic Places.

(b) exercise caution during the interim period until inventories and evaluations required by subsection (a) are completed to assure that any federally owned property that might qualify for nomination is not inadvertently transferred, sold, demolished or substantially altered. The agency head shall refer any questionable actions to the Secretary of the Interior for an opinion respecting the property's eligibility for inclusion on the National Register of Historic Places. The Secretary shall consult with the liaison officer for historic preservation for the State or territory

involved in arriving at his opinion. Where, after a reasonable period in which to review and evaluate the property, the Secretary determines that the property is likely to meet the criteria prescribed for listing on the National Register of Historic Places, the Federal agency head shall reconsider the proposal in light of national environmental and preservation policy. Where, after such reconsideration, the Federal agency head proposes to transfer, sell, demolish or substantially alter the property he shall not act with respect to the property until the Advisory Council on Historic Preservation shall have been provided an opportunity to comment on the proposal.

(c) initiate measures to assure that where as a result of Federal action or assistance a property listed on the National Register of Historic Places is to be substantially altered or demolished, timely steps be taken to make or have made records, including measured drawings, photographs and maps, of the property, and that copy of such records then be deposited in the Library of Congress as part of the Historic American Buildings Survey or Historic American Engineering Record for future use and reference. Agencies may call on the Department of the Interior for advice and technical assistance in the completion of the above records.

(d) initiate measures and procedures to provide for the maintenance, through preservation, rehabilitation, or restoration, of federally owned and registered sites at professional standards prescribed by the Secretary of the Interior.

(e) submit procedures required pursuant to subsection (d) to the Secretary of the Interior and to the Advisory Council on Historic Preservation no later than January 1, 1972, and annually thereafter, for review and comment.

(f) cooperate with purchasers and transferees of a property listed on the National Register of Historic Places in the development of viable plans to use such property in a manner compatible with preservation objectives and which does not result in an unreasonable economic burden to public or private interests.

SEC. 3. *Responsibilities of the Secretary of the Interior.* The Secretary of the Interior shall:

(a) encourage State and local historic preservation officials to evaluate and survey federally owned historic properties and, where appropriate, to nominate such properties for listing on the National Register of Historic Places.

(b) develop criteria and procedures to be applied by Federal agencies in the reviews and nominations required by section 2(a). Such criteria and procedures shall be developed in consultation with the affected agencies.

(c) expedite action upon nominations to the National Register of Historic Places concerning federally owned properties proposed for sale, transfer, demolition or substantial alteration.

(d) encourage State and Territorial liaison officers for historic preservation to furnish information upon request to Federal agencies regarding their properties which have been evaluated with respect to historic

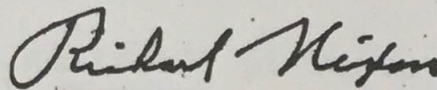
architectural or archaeological significance and which as a result of such evaluations have not been found suitable for listing on the National Register of Historic Places.

(e) develop and make available to Federal agencies and State and local governments information concerning professional methods and techniques for preserving, improving, restoring and maintaining historic properties.

(f) advise Federal agencies in the evaluation, identification, preservation, improvement, restoration and maintenance of historic properties.

(g) review and evaluate the plans of transferees of surplus Federal properties transferred for historic monument purposes to assure that the historic character of such properties is preserved in rehabilitation, restoration, improvement, maintenance and repair of such properties.

(h) review and comment upon Federal agency procedures submitted pursuant to section 2(e) of this order.



THE WHITE HOUSE,
May 13, 1971.

[FR Doc.71-6951 Filed 5-14-71;12:18 pm]

NOTE: For the text of a Presidential statement issued in connection with E.O. 11593 above, see Weekly Comp. of Pres. Docs., Vol. 7, issue of May 17, 1971.

NATIONAL REGISTER ENTRIES - COLORADO

1. Avery House, Fort Collins
2. Baca House, Trinidad
3. Bent's Old Fort, Otero County
4. Bloom House, Trinidad
5. Brown, Molly, House, Denver
6. Brown Palace Hotel, Denver
7. Byers-Evans Home, Denver
8. Central City District, Gilpin County
9. Chimney Rock Archeological Site, Archuleta County
10. Cleveholm, Pitkin County
11. Commanche Crossing, Strasburg
12. Constitution Hall, Denver
13. Cripple Creek District, Teller County
14. Daniels and Fisher Tower, Denver
15. Denver Mint, Denver
16. Dexter Cabin, Leadville
17. Durango-Silverton Narrow-Gauge Railroad, La Plata County
18. Emmanuel Shearith Israel Chapel, Denver
19. Everett and Lebanon Mine Tunnels, Clear Creek County
20. Fort Garland, Fort Garland
21. Fort Vasquez, Platteville
22. Four Mile House, Denver
23. Georgetown Loop Railroad, Clear Creek County
24. Georgetown - Silver Plume District, Clear Creek County
25. Governor's Mansion, Denver
26. Grant-Humphreys Mansion, Denver
27. Hamill, William, House, Georgetown
28. Healy House, Leadville
29. Hotel de Paris, Georgetown
30. Hovenweep Monument, Montezuma County
31. Jaffa Opera House, Trinidad
32. Leadville District, Lake County
33. Lindenmeier Site, Larimer County
34. Lowry Ruin, Montezuma County
35. Meeker Memorial Museum, Greeley
36. Mesa Verde National Park, Montezuma County
37. Mount Vernon House, Jefferson County
38. Ore Processing Mill and Dam, Clear Creek County
39. Pearce - McAllister Cottage, Denver
40. Pikes Peak, El Paso County
41. Pikes Stockade, Conejos County
42. Raton Pass, Las Animas County
43. St. Elizabeth's Church, Denver
44. Silver Plume Depot, Silver Plume
45. Silverton District, San Juan County
46. Telluride District, San Miguel County
47. Toll House, Georgetown
48. Trinity Methodist Church, Denver
49. Ute Memorial Site, Montrose County
50. Ute Mountain Ute Mancos Canyon Historic District, Montezuma
& La Plata Counties
51. Wheeler Opera House, Aspen
52. Yucca House National Monument, Montezuma County
53. El Paso County Court House

November 1, 1972

NATIONAL REGISTER ENTRIES - COLORADO

1. Avery House, Fort Collins
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November 1, 1972

federal register

WEDNESDAY, MARCH 15, 1972

WASHINGTON, D.C.

Volume 37 ■ Number 51

PART II



DEPARTMENT OF THE INTERIOR

National Park Service

■

**National Register of Historic
Places**

DEPARTMENT OF THE INTERIOR

National Park Service

NATIONAL REGISTER OF HISTORIC PLACES

Pursuant to the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470) the Advisory Council on Historic Preservation and the National Park Service, Department of the Interior have undertaken steps to implement the purposes of that act through (1) expansion of the National Register of Historic Places, (2) initiating a program of grants-in-aid for historic preservation, and (3) adoption of procedures and criteria for furthering the Nation's historic preservation program. In addition, the role and functions of the Advisory Council on Historic Preservation have been more clearly defined.

It is the purpose of this notice, through publication of the following information and materials, to apprise the public, as well as governmental agencies, associations, and all other organizations and individuals interested in historic preservation of the implementing actions that have been taken in order that there will be a greater awareness of the means by which properties of State and local historical significance may be nominated for placement in the National Register, of the criteria used in evaluating the properties, and of the responsibilities exercised by the Advisory Council. The notice includes a list of the properties included in the National Register of Historic Places through February 1, 1972. This does not include the National Register supplement of March 7, 1972.

THOMAS FLYNN,
Acting Director, National Park
Service, and Executive Direc-
tor, Advisory Council on His-
toric Preservation.

THE NATIONAL HISTORIC PRESERVATION ACT

I. THE NATIONAL REGISTER OF HISTORIC PLACES AND PROCEDURES FOR REGISTRATION

A. Introduction. In the National Historic Preservation Act of 1966, 80 Stat. 915, 16 U.S.C. 470, the Congress found and declared:

(a) That the spirit and direction of the Nation are founded upon and reflected in its historic past;

(b) That the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.

(c) That, in the face of ever-increasing extensions of urban centers, highways, and residential, commercial, and industrial developments, the present governmental and nongovernmental historic preservation programs and activities are inadequate to insure future generations a genuine opportunity to appreciate and enjoy the rich heritage of our Nation; and

(d) That, although the major burdens of historic preservation have been borne and major efforts initiated by private agencies and individuals, and both should continue to play a vital role, it is nevertheless necessary and appropriate for the Federal Government to accelerate its historic preservation programs and activities, to give maximum encouragement to agencies and

individuals undertaking preservation by private means, and to assist State and local governments and the National Trust for Historic Preservation in the United States to expand and accelerate their historic preservation programs and activities.

In order to accomplish these purposes, the National Historic Preservation Act provided for three significant innovations: An expanded National Register of Historic Places, a program of grants-in-aid for historic preservation, and an Advisory Council on Historic Preservation empowered to comment upon all undertakings licensed, assisted, or carried out by the Federal Government that have an effect upon properties in the National Register.

Official notice is hereby given to the public and government agencies of the opportunities and restrictions provided by the National Historic Preservation Act. Detailed administrative procedures for the program may be found in the manuals, "Policies and Procedures for Historic Preservation Grants-in-Aid," and "Historic Preservation Handbook, Part I: Completing National Register Forms" (U.S. Department of the Interior, National Park Service, Washington, D.C.).

B. Expanding the National Register of Historic Places. The Act authorizes the Secretary of the Interior to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, and culture. Previously, the National Register included only nationally significant properties that are historical or archeological units of the National Park System or that have been declared eligible for designation as National Historic Landmarks. Because they must meet exacting criteria of national significance, such properties are few in number. The National Historic Preservation Act of 1966 provides a means for States to nominate properties of State and local significance for placement in the National Register.

The following officials have been designated by their Governors to act as State Liaison Officers responsible for State activities under the National Historic Preservation Act:

STATE LIAISON OFFICERS

ALABAMA

Chairman, Alabama Historical Commission, State Department of Archives and History, 305 South Lawrence Street, Montgomery, AL 36104.

ALASKA

Director, Division of Parks, Department of Natural Resources, 323 East Fourth Avenue, Anchorage, AK 99501.

ARIZONA

Director, State Parks Board, 1688 West Adams, Phoenix, AZ 85007.

ARKANSAS

Director, Arkansas Department of Parks and Tourism, State Capitol, Room 149, Little Rock, Ark. 72201.

CALIFORNIA

Director, Department of Parks and Recreation, State Resources Agency, Post Office Box 2390, Sacramento, CA 95811.

COLORADO

State Liaison Officer, State Historical Society, Colorado State Museum, 200 14th Avenue, Denver, CO 80203.

CONNECTICUT

Chairman, Connecticut Historical Commission, 54 Pratt Street, Hartford, CT 06103.

DELAWARE

Director, Division of Historical and Cultural Affairs, Department of State, Dover, Del. 19901.

FLORIDA

Director, Division of Archives, History, and Records Management, Department of State, 401 East Gaines Street, Tallahassee, FL 32304.

GEORGIA

Director, Georgia Historical Commission, 116 Mitchell Street SW., Atlanta, GA 30303.

HAWAII

Chairman, Department of Land and Natural Resources, State of Hawaii, Post Office Box 621, Honolulu, HI 96809.

IDAHO

Director, Idaho Historical Society, 610 North Julia Davis Drive, Boise, ID 83706.

ILLINOIS

Director, Department of Conservation, 102 State Office Building, 400 South Spring Street, Springfield, IL 62706.

INDIANA

Director, Department of Natural Resources, State of Indiana, 615 State Office Building, Indianapolis, Ind. 46204.

IOWA

Assistant State Archeologist, University of Iowa, Iowa City, Iowa 52240.

KANSAS

Executive Secretary, Kansas State Historical Society, 120 West 10th, Topeka, KS 66612.

KENTUCKY

Administrator, Kentucky Program Development Office, Room 157, Capitol Building, Frankfort, Ky. 40601.

LOUISIANA

Chairman, Louisiana Historical Preservation and Cultural Commission, Old State Capitol, Baton Rouge, La. 70802.

MAINE

Director, State Park and Recreation Commission, State Office Building, Augusta, Maine 04330.

MARYLAND

Director, Maryland Historical Trust, 94 College Avenue, Annapolis, MD 21401.

MASSACHUSETTS

Secretary of the Commonwealth, Chairman, Massachusetts Historical Commission, State House, Boston, Mass. 02133.

MICHIGAN

Acting Deputy Director, Recreation, Department of Natural Resources, Stevens T. Mason Building, Lansing, Mich. 48926.

MINNESOTA

Director, Minnesota Historical Society, 690 Cedar Street, St. Paul, MN 55101.

MISSISSIPPI

Director, State of Mississippi, Department of Archives and History, Post Office Box 571, Jackson, MS 39205.

MISSOURI

Director, Missouri State Park Board, Post Office Box 176, 1204 Jefferson Building, Jefferson City, MO 65101.

MONTANA

Chief of Recreation and Parks Division, Department of Fish and Game, State of Montana, Mitchell Building, Helena, Mont. 59601.

NEBRASKA

Director, The Nebraska State Historical Society, 1500 R Street, Lincoln, NE 68508.

NEVADA

Administrator, Division of State Parks, 201 South Fall Street, Room 221, Nye Building, Carson City, NV 89701.

NEW HAMPSHIRE

Commissioner, Department of Resources and Economic Development, 856 State House Annex, Concord, NH 03301.

NEW JERSEY

Commissioner, Department of Environmental Protection, Post Office Box 1420, Trenton, NJ 08625.

NEW MEXICO

Acting State Planning Officer, State Capitol, 403 Capitol Building, Santa Fe, N. Mex. 87501.

NEW YORK

Chairman, New York State Historic Trust, Parks and Recreation, Building 2, State Campus, Albany, NY 12226.

NORTH CAROLINA

Director, Department of Archives and History, State of North Carolina, Post Office Box 1881, Raleigh, NC 27602.

NORTH DAKOTA

Superintendent, State Historical Society of North Dakota, Liberty Memorial Building, Bismarck, N. Dak. 58501.

OHIO

Director, The Ohio Historical Society, Ohio Historical Center, Columbus, Ohio 43211.

OKLAHOMA

President, Oklahoma Historical Society, 1108 Colcord Building, Oklahoma City, Okla. 73102.

OREGON

Administrator of Highways, State Highway Building, Salem, Oreg. 97310.

PENNSYLVANIA

Executive Director, Pennsylvania Historical and Museum Commission, William Penn Memorial Museum and Archives Building, Harrisburg, Pa. 17108.

RHODE ISLAND

Director, Department of Community Affairs, C.I.C. Building, 289 Promenade Street, Providence, RI 02908.

SOUTH CAROLINA

Director, State Archives Department, 1430 Senate Street, Columbia, SC 29211.

SOUTH DAKOTA

Acting Chief, Department of Game, Fish and Parks, Division of Parks and Recreation, State Office Building No. 1, Pierre, S. Dak. 57501.

TENNESSEE

Acting Executive Secretary, Tennessee Historical Commission, State Library and Archives Building, Nashville, Tenn. 37219.

TEXAS

Executive Director, Texas State Historical Survey Committee, Post Office Box 12276, Capitol Station, Austin, TX 78701.

UTAH

Director, Department of Development Services, 312 State Capitol Building, Salt Lake City, Utah 84102.

VERMONT

State Liaison Officer, Board of Historic Sites, 7 Langdon Street, Montpelier, VT 05602.

VIRGINIA

Chairman, Virginia Historic Landmarks Commission, Room 1106, Ninth Street State Office Building, Richmond, VA 23219.

WASHINGTON

Director, Washington State Parks and Recreation Commission, Olympia, Wash. 98501.

WEST VIRGINIA

Chairman, Division of Social Sciences, Potomac State College of West Virginia University, Keyser, W. Va. 26726.

WISCONSIN

Director, State Historical Society of Wisconsin, 816 State Street, Madison, WI 53706.

WYOMING

Director, Wyoming Recreation Commission, 604 East 25th Street, Box 309, Cheyenne, WY 82001.

DISTRICT OF COLUMBIA

Deputy Mayor, District of Columbia Government, Washington, D.C. 20004.

COMMONWEALTH OF PUERTO RICO

Executive Director, Institute of Puerto Rican Culture, Apartado 4184, San Juan, P.R. 00905.

GUAM

Director of Tourism, Government of Guam, Agaña, Guam 96910.

VIRGIN ISLANDS

Planning Director, Virgin Islands Planning Board, Charlotte Amalie, St. Thomas, V.I. 00810.

SAMOA

Governor, Office of the Governor, Pago Pago, American Samoa 96920.

The State Liaison Officer supervises a professional survey staff in conducting a statewide historic sites survey. From the survey findings a comprehensive statewide historic preservation plan is prepared. The plan must be reviewed and approved by a high-level professional review committee. The State Liaison Officer, in accordance with the plan, may then nominate properties for inclusion in the National Register. The nominated properties which are approved by the National Park Service are entered in the National Register of Historic Places by the Director, Office of Archeology and Historic Preservation, National Park Service.

The following criteria shall be used by the States in evaluating properties for nomination to the National Register of Historic Places and by the National Park Service in reviewing State nominations.

National Register Criteria of Evaluation

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites,

buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or

2. That are associated with the lives of persons significant in our past; or

3. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

4. That have yielded, or may be likely to yield, information important in prehistory or history.

Criteria considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

(a) A religious property deriving primary significance from architectural or artistic distinction or historical importance.

(b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event.

(c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.

(d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events.

(e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived.

(f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance.

(g) A property achieving significance within the past 50 years if it is of exceptional importance.

C. Grants for historic preservation. The National Historic Preservation Act also authorizes a program of grants-in-aid to States for comprehensive statewide historic site surveys and preservation plans. Grants are also authorized to

States, local governments, private organizations, and individuals for preservation projects in accordance with an approved statewide plan. All grants are made through the States. The State Liaison Officer may then distribute the funds to other approved public and private recipients. Funds may be used for acquisition, protection, rehabilitation, restoration, and reconstruction of properties included in the National Register of Historic Places.

II. PROTECTION OF PROPERTIES IN THE NATIONAL REGISTER OF HISTORIC PLACES

A. Introduction. The National Historic Preservation Act of 1966 created the Advisory Council on Historic Preservation. The Council is authorized to advise the President and the Congress on matters relating to historic preservation; to recommend measures to coordinate activities of Federal, State, and local agencies and private institutions and individuals relating to historic preservation; to comment on undertakings carried out, licensed, or financially assisted by the Federal Government which have any effect upon properties listed in the National Register; and to secure from the appropriate Federal agencies certain information necessary to the performance of these duties.

B. Procedures for section 106 compliance. The Advisory Council exercises an important function by responding with comments to undertakings carried out, licensed, or financially assisted by the Federal Government, when the undertaking will affect a property listed in the National Register. This authority derives from section 106 of the National Historic Preservation Act, which provides that:

The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under title II of this Act a reasonable opportunity to comment with regard to such undertaking.

The Advisory Council desires to provide maximum assistance in connection with section 106. Normally the Council anticipates that its comments will be required in only the most complex situations, and it requests that agencies fulfill their obligations under section 106 by the use of the following procedures:

ADVISORY COUNCIL ON HISTORIC PRESERVATION
WASHINGTON, D.C. 20240

Procedures for Compliance Section 106

National Historic Preservation Act of 1966

At the earliest stage of planning or consideration of any undertakings carried out, licensed, or financially assisted by the Federal Government, an agency should follow these steps:

1. Consult the National Register of Historic Places to determine if a National Register property is involved in the undertaking. The National Register is maintained by the Office of Archeology and Historic Preservation, National Park Service, and monthly addenda are published in the *FEDERAL REGISTER*.

2. Apply the "Criteria for Effect." If there is no effect, the undertaking may proceed.

3. If there is an effect, regional, or State officials of the agency¹ in consultation with the State Liaison Officer and a representative of the Office of Archeology and Historic Preservation shall:

(a) Determine if the effect is adverse—if not, the undertaking may proceed;

(b) Upon finding an adverse effect, select and agree upon a prudent and feasible alternative to remove the adverse effect, in which case the undertaking may proceed;

(c) Failing to find and agree upon an alternative, recommend all possible planning to minimize the adverse effect and delay further processing of the undertaking pending the receipt of comments from the Advisory Council.

4. Provide written notice affording the Advisory Council an opportunity to comment upon doubtful or unresolved situations of adverse effect and upon request submit a report of the undertaking.

The Council expects to exert its advisory prerogatives by commenting to agencies in certain special situations even though written notice of effect has not been received.

Criteria for Effect

A federally financed or licensed undertaking shall be considered to have an effect on a National Register listing (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking creates a change in the quality of the historical, architectural, archeological, or cultural character that qualified the property under the National Register criteria for listing in the National Register.

Generally, adverse effects occur under conditions which include but are not limited to:

(a) Destruction or alteration of all or part of a property;

(b) Isolation from or alteration of its surrounding environment;

(c) Introduction of visual, audible, or atmospheric elements that are out of character with the property and its setting.

C. Advisory Council section 106 reporting procedures. For the convenience of agencies submitting effect notices to the Council under section 106, the following standard procedures for handling such notices have been promulgated:

1. Upon receipt of a written notice of an undertaking having an effect on a National Register property, the Council shall:

(a) Acknowledge its receipt and give notice of a 14-day review period during which the Advisory Council may determine and so advise the agency of its desire to comment;

(b) Refer the notice to the Office of Archeology and Historic Preservation, National Park Service, for a preliminary verification of significance, National or otherwise, and evaluation of the effect upon the National Register property; and

¹ When the agency has no regional or State officials, the Office of Archeology and Historic Preservation will perform this service.

(c) Determine that it will or will not comment.

2. Upon determination that the Council will comment on an undertaking, the Council shall:

(a) Notify the agency of Council intent to comment and date by which it will do so;

(b) Place the matter on the agenda of the next regular meeting or in exceptional circumstances schedule the matter for consideration in an unannounced meeting; and

(c) Authorize preparation of a section 106 report.

3. This section 106 report shall be prepared by the Executive Director and shall contain:

(a) A full report of verification and evaluation of the effect prepared by the Office of Archeology and Historic Preservation;

(b) A report from the requesting agency on the undertaking with the agency evaluation of effect; and

(c) Conclusions.

The section 106 report shall contain but not be limited to information such as a full description including visual materials of the National Register property, the undertaking, agency efforts to take into account effect on National Register properties, records of hearings, statements of support or opposition, a statement from the State Liaison Officer, and answers to any specific questions voiced by Council members. The Council will not hold formal hearings on section 106 matters. The Council comments to agencies shall take the form of a three-part statement including an introduction, findings, and a conclusion.

ALABAMA

Baldwin County

Gasque vicinity, *Fort Morgan, western terminus of Alabama 180.

Barbour County

Eufaula, Bray-Barron Home, North Eufaula Avenue.

Eufaula, Gato House, 823 West Barbour Street.

Eufaula, Fendall Hall, Barbour Street.

Eufaula, Kendall Manor, 534 West Broad Street.

Eufaula, McNab Bank Building, Broad Street.

Eufaula, Sheppard Cottage, East Barbour Street.

Eufaula, Shorter Mansion, 340 North Eufaula Avenue.

Eufaula, The Tavern (River Tavern), 105 Riverside Drive.

Eufaula, Welborn (Welborn) House, Livingston Avenue.

Blount County

Oneonta vicinity, Horton Mill Covered Bridge, 5 miles north of Oneonta on Route 3.

Calhoun County

Jacksonville, Francis, Dr. J. O., Office, 100 Gayle Street.

Colbert County

Florence vicinity, *Wilson Dam, Tennessee River, on Alabama 133 (also in Lauderdale County).

Tusculum, Ivy Green (Helen Keller Birthplace), 300 West North Common.

De Kalb County

Fort Payne, Alabama Great Southern Railroad Passenger Depot, Northeast Fifth Street.
Fort Payne, Fort Payne Opera House, 510 Gault Avenue, North.

Elmore County

Wetumpka vicinity, *Fort Toulouse, 4 miles southwest of Wetumpka at confluence of the Coosa and Tallapoosa rivers.

Greene County

Eutaw, Coleman-Banks House, 430 Springfield Road.
Eutaw, Greene County Courthouse, Court-house Square.
Forkland vicinity, Rosemount, 1 mile northwest of Forkland.

Hale County

Moundville vicinity, *Moundville Site, 1 mile west of Moundville on County Route 21.

Jackson County

Bridgeport vicinity, Russell Case National Monument, 8 miles west of Bridgeport via U.S. 72 and County Routes 91 and 75.

Jefferson County

Birmingham, Arlington (Mudd-Munger Home), 331 Cotton Avenue SW.

Lauderdale County

Florence, Kennedy (Oscar) House, 303 North Pine Street.
*Wilson Dam (see Colbert County).

Lowndes County

Hayneville, Lowndes County Courthouse, Washington Street.

Macon County

Tuskegee vicinity, *Tuskegee Institute, 1 mile northwest of Tuskegee on U.S. 80.

Madison County

Huntsville, Southern Railway System Depot, 330 Church Street.

Marion County

Demopolis, Bluff Hall, 405 North Commissioners Avenue.
Demopolis, Gaineswood, 805 South Cedar Street.
Demopolis, White Bluff, Arch Street.

Mobile County

Mobile, Barton Academy, 504 Government Street.
Mobile, Bishop Porter Home, 307 Condit Street.
Mobile, Church Street East Historic District.
Mobile, City Hall, 111 South Royal Street.
Mobile, Fort Condé-Charlotte, within an area bounded roughly by Emanuel, Theater, Royal, and Church Streets, and extending slightly north of Church Street.
Mobile, Horst, Martin, House, 407 Condit Street.
Mobile, Oakleigh, 350 Oakleigh Street.
Mobile, Old City Hospital, 600-650 St. Anthony Street.
Mobile, Semmes (Raphael) Home, 804 Government Street.

Montgomery County

Montgomery, *Alabama State Capitol (First Confederate Capitol), Goat Hill, east end of Dexter Avenue.
Montgomery, Ordeman-Shaw Historic District, bounded on the west by a line midway between McDonough and Hull Streets, on the north by Randolph Street, on the east by a line midway between Hull and Decatur Streets (to Jefferson Street) and by Decatur Street, and on the south by Madison Avenue.

Montgomery, Perry Street Historic District, bounded roughly by McDonough on the east, Sayre on the west, Washington on the north, and Donaldson on the south.
Montgomery, Winter Building, 2 Dexter Avenue.

Russell County

Holy Trinity vicinity, *Apalachicola Fort, 1.5 miles east of Holy Trinity on Chattahoochee River.

Shelby County

Monterello, Mansion House, Campus of the University of Montevallo.

Talladega County

Talladega vicinity, *Curry (J. L. M.) Home, 3 miles northeast of Talladega on Alabama 21.

Tallapoosa County

Dadeville vicinity, Horseshoe Bend National Military Park, Tallapoosa River, 12 miles north of Dadeville on Alabama 49.

Tuscaloosa County

Tuscaloosa, Collier-Oerby House, southeast corner of Ninth Street and 21st Avenue.
Tuscaloosa, Friedman Civic and Cultural Center, 1010 Greensboro Avenue.
Tuscaloosa, Gorgas-Marilyn Historic District, bounded approximately by Seventh and Eighth Avenues, Captains Drive, and the street 1 block south of Third.
Tuscaloosa, President's Mansion, University of Alabama campus.
University, The Old Observatory, north of University Boulevard.

Washington County

St. Stephens vicinity, Site of Old St. Stephens, northeast of St. Stephens and bounded on the north by cement excavations, on the east by the Tombigbee River, on the south by woodland, and on the west by woodland and pasture.

ALASKA

Gateway Borough

Ketchikan, Alaska Totems, between Park and Deermont Avenues.

Interior District

Eagle, Eagle Historic District, left bank of the Yukon River at the mouth of Mission Creek; secs. 24, 25, 36, T. 1 S., R. 32 E., sec. 19, 30, 31, T. 1 S., R. 33 E., sec. 1, T. 2 S., R. 32 E., sec. 4, 5, 6, T. 2 S., R. 33 E.
Flaxman Island, Lingsfield Camp, Arctic coast, 33 miles west of Barter Island.
Paxson vicinity (also in South Central District), Tangle Lakes Archeological District, Denali Highway, western boundary is 40 miles west of Paxson.

Northwestern District

Barrow vicinity, *Birnie Site, 5 miles northwest of Barrow.
Cape Deming Peninsula, *Igatayet Site, Norton Sound.
Cape Prince of Wales vicinity, *Wales Sites, adjacent to Cape Prince of Wales on Seward Peninsula.
Nome vicinity, *Arctic Creek Gold Discovery Site, 4.25 miles north of Nome on Seward Peninsula at Arvik Creek.
Point Hope Peninsula, *Ipiutak Site, tip of Point Hope lat. 68°20' N., long. 167°50' W.
St. Lawrence Island, *Gambell Sites, Northwest Cape.

South Central District

Dutch Harbor, Unalaska Island, *Church of the Holy Ascension, Unalaska.
Kenai, *Church of the Assumption of the Virgin Mary, east shore of Cook Inlet.
Kodiak, Kodiak Island, *Erskine House (Baranof Warehouse), Main Street and Mission Street.

Kodiak vicinity, Fort Abercrombie State Historic Site, Kodiak Island.
Nikolski vicinity, *Chaluka Site, Umnak Island, Aleutian Islands.
Pribilof Islands, St. Paul Island, *Fur Seal Rockeries.

Rip Rock vicinity, Hawkins Island, *Palugvik Site, 3.75 miles east of Rip Rock on Prince William Sound.

Tangle Lakes Archeological District

(see Interior District).

Yukon Island, *Yukon Island Main Site, Kachemak Bay, Cook Inlet.

Southeastern District

Ketchikan vicinity, Totem Bight State Historic Site, west coast of Revillagigedo Island.
Sitka, *American Flag Raising Site, Castle Hill.
Sitka, *Russian Mission Orphanage, Lincoln and Monastery Streets.
Sitka, *St. Michael's Cathedral, Lincoln and Makouloff Streets.
Sitka, Baranof Island, Sitka National Monument.
Sitka vicinity, *Old Sitka Site, 6 miles north of Sitka on Starrigavan Bay.
Skagway and vicinity, *Skagway Historic District and White Pass, head of Tuya Inlet on Lynn Canal.
Wrangell, Chief Shakes State Historic Site, Shakes Island.

ARIZONA

Apache County

Chinle, Canyon de Chelly National Monument, east side of Chinle.
Ganado, Hubbell Trading Post National Historic Site, west side of Ganado.
Springerville vicinity, *Casa Malpais Site, 2 miles north of Springerville.

Cochise County

Biabee, Phelps Dodge General Office Building, Copper Queen Plaza, intersection of Main Street and Brewery Gulch.
Biabee vicinity, Coronado National Memorial, 30 miles southwest of Biabee via Arizona 92 and secondary road.
Biabee vicinity, *Lehner Mammoth-Kill Site, 10 miles west of Biabee.
Bowie vicinity, Fort Bowie National Historic Site, 13 miles south of Bowie.
Douglas vicinity, *Double Adobe Site, 12 miles northwest of Douglas on the west bank of Whitewater Creek.
Douglas vicinity, *San Bernardino Ranch, 17 miles east of Douglas on the international boundary.
Fairbank vicinity, Quiburi, north of Fairbank.
Tombstone, St. Paul's Episcopal Church, Safford and Third Streets.
Tombstone, *Tombstone Historic District.

Cocconino County

Flagstaff vicinity, *Lowell Observatory, 1 mile west of Flagstaff on Mars Hill.
Flagstaff vicinity, *Merriam, C. Hart, Base Camp Site, 20 miles northwest of Flagstaff, at Little Springs private enclave in Cocconino National Forest.
Flagstaff vicinity, Walnut Canyon National Monument, 8 miles east of Flagstaff on U.S. 66.
Flagstaff vicinity, Wupatki National Monument, 30 miles north of Flagstaff off U.S. 89.
Winona vicinity, *Winona Site, 5 miles northeast of Winona on U.S. 66, Cocconino National Forest.

Gila County

Globe vicinity, *Roosevelt Dam, Salt River, 31 miles northwest of Globe on Arizona 68 (also in Maricopa County).
Globe vicinity, Tonto National Monument, 28 miles northwest of Globe on Arizona 68.

Whiteriver vicinity, *Kinshiba Ruins, 15 miles west of Whiteriver via Arizona 73 and secondary road.

Graham County

Bonita vicinity, *Sierra Bonita Ranch, southwest of Bonita.
Morenci vicinity, *Point of Pines, 30 miles northwest of Morenci, San Carlos Indian Reservation.

Maricopa County

Gila Bend vicinity, Fortaleza, Gila Bend Indian Reservation.
Gila Bend vicinity, *Gallin Site, 3 miles north of Gila Bend.
Phoenix, *Hohokam-Pima Irrigation Sites, Park of the Four Waters.
Phoenix, *Pueblo Grande Ruin, Washington Avenue, Pueblo Grande City Park.
Phoenix, Rosson, Dr. Ronald, House, 139 North Sixth Street.
*Roosevelt Dam (see Gila County).

Mohave County

Fredonia vicinity, Pipe Spring National Monument, 18 miles southwest of Fredonia.

Navejo County

Kayenta vicinity, Navajo National Monument, 30 miles southwest of Kayenta.
Keams Canyon vicinity, *Awatovi Ruins, 8 miles south of Keams Canyon, Hopi Indian Reservation.
Orabi vicinity, *Old Oraibi, 5 miles west of Oraibi on Arizona 264, Hopi Indian Reservation.
Snowflake, Fluke, James M., Home, southwest corner of Sunston and Hunt Streets.
Snowflake, Smith, Jesse N., Home (Pioneer Memorial Home), 203 West Smith Avenue.

Pima County

Santa Rosa vicinity, *Ventana Cave, 11 miles west of Santa Rosa, Papago Indian Reservation.
Tucson, El Tiradito (Wishing Shrine), 221 South Main.
Tucson, Fremont House, 145-153 South Main Street.
Tucson, The Old Adobe Patio (Charles O. Brown House), 40 West Broadway.
Tucson vicinity, *Desert Laboratory, west of Tucson off West Anklam Road.
Tucson vicinity, *San Xavier del Bac, 9 miles south of Tucson via Mission Road.

Pinal County

Chandler vicinity, *Snaketown, 12 miles southwest of Chandler, Gila River Indian Reservation.
Coolidge vicinity, Casa Grande Ruins National Monument, 2 miles north of Coolidge on Arizona 87.
Florence vicinity, Adamsville Ruin, 3.5 miles southwest of Florence on Arizona 287.

Santa Cruz County

Nogales vicinity, Calebasas, north of Nogales on the east bank of the Santa Cruz River.
Nogales vicinity, Guercio Mission Ruins, approximately 6 miles above the international boundary.
Nogales vicinity, Tumacacori National Monument, 18 miles north of Nogales on Interstate 19.
Tubac, Old Tubac Schoolhouse.
Tubac, Tubac Presidio, Broadway and River Road.

Yavapai County

Camp Verde, Fort Verde District, bounded by Hance Street on the north, Coppinger Street on the east, and Woods Street on the west.
Clarkdale vicinity, Tusupoot National Monument, 2 miles east of Clarkdale.

Flagstaff vicinity, Montezuma Castle National Monument, 40 miles south of Flagstaff on Interstate 17.
Jerome, *Jerome Historic District.
Prescott, Old Governor's Mansion, 400 block of West Gurley.

Yuma County

Ehrenberg vicinity, Old La Paz (Laguna de La Paz), northeast of Ehrenberg on the Colorado River Indian Tribes Reservation.
Parker vicinity, Old Presbyterian Church (Mojave Indian Presbyterian Mission Church), southwest of Parker on Second Avenue.
Yuma, *Yuma Crossing and Associated Sites, banks of the Colorado River (also in Imperial County, Calif.).

ARKANSAS

Arkansas County

Gillett vicinity, Arkansas Post National Memorial, 8 miles southeast of Gillett on Arkansas 1 and 169.

Benton County

Pea Ridge, Pea Ridge National Military Park.

Carroll County

Eureka Springs, Eureka Springs Historic District, enclosed by a rectangle, the coordinates of which are on the northwest corner latitude 36°24'42" N., longitude 93°44'54" W., on the northeast corner latitude 36°24'42" N., longitude 93°43'42" W., on the southeast corner latitude 36°23'30" N., longitude 93°43'42" W., and on the southwest corner latitude 36°23'30" N., longitude 93°44'54" W.

Cleveland County

Fordyce vicinity, Mark's Mill Battlefield Park, intersection of Arkansas 8 and 97.

Crawford County

Van Buren, Drennen-Scott House, Drennen Reserve, North Third Street.

Cross County

Parkin vicinity, *Parkin Indian Mound, north edge of Parkin.

Grant County

Leola vicinity, Jenkins's Ferry Battleground State Park, northeast of Leola on Arkansas 46.

Hempstead County

Washington, Rogston, Grandison D., House, Alexander Street, 200 feet southwest of Columbus Street (Arkansas 4) and approximately 450 feet southeast of Old Military Road (Arkansas 195).

Independence County

Batesville, Carrott House (Case-Maxfield House), 561 East Main Street.

Jackson County

Jacksonport, Jacksonport State Park, located between Avenue, Main, and Dillard Streets, and the White River.

Jefferson County

Pine Bluff, Du Boage, 1115 West Fourth Street.
Pine Bluff, Hudson-Grace-Borreson House, 716 West Baroque.

Lawrence County

Fowhatan, Fowhatan Courthouse.

Mississippi County

Wilson, *Nodena Site, south edge of Wilson.
Ouchitua County

Camden, McCallum-Chidester House, 928 Washington Street NW.

Chidester vicinity, Poison Spring State Park, E½NE¼ sec. 1, T. 13 S., R. 19 W.

Pope County

Pottsville, Potts Inn, Main and Center Streets.

Pulaski County

Little Rock, The Little Rock, on the south bank of the Arkansas River at the foot of Rock Street.
Little Rock, Mount Holly Cemetery, 12th Street and Broadway.
Little Rock, Old State House, 300 West Markham Street.
Little Rock, The Tavern, Arkansas Territorial Restoration, 214 East Third Street.
Little Rock, U.S. Arsenal Building, MacArthur Park, Ninth and Commerce Streets.
Little Rock, Villa Marre (Angelo Marre House), 1321 Scott Street.
Mabelvale vicinity, Ten Mile House (Stagecoach House), north of Mabelvale on Arkansas 5.

Sebastian County

Fort Smith, Bonnellville House, 318 North Seventh Street.
Fort Smith, Clayton, W. H. H., Home, 514 North Sixth Street.
Fort Smith, Fort Smith National Historic Site.

Washington County

Fayetteville, Headquarters House (Tebbetts House), 118 East Dickson Street.
Fayetteville, Old Main, University of Arkansas, Arkansas Avenue.
Fayetteville, Stone House, 207 Center Street.
Prairie Grove, Prairie Grove Battlefield Park, within a triangle formed by North Road on the northwest and U.S. 63 on the south.

CALIFORNIA

Alameda County

Berkeley, *Room 307 Gilman Hall, University of California, University of California campus.
Fremont, California Nursery Co. Guest House (Jose de Jesus Valjejo Adobe), California Nursery Co., Niles Boulevard at Nursery Avenue.
Fremont (Mission San José District), Mission San José, Mission Boulevard at Washington Boulevard.
Oakland, The Abbey (Joaquin Miller House).
Joaquin Miller Road and Sanborn Drive.
Oakland, *Lake Merritt Wild Duck Refuge, Lakeside Park, Grand Avenue.
Oakland, Mills Hall, Mills College campus.

Amador County

Volcano vicinity, Indian Grinding Rock (Chaw'se), 2.25 miles southwest of Volcano on Pine Grove-Volcano Road.

Butte County

Chico vicinity, Patrick Rancheria, 3 miles south of Chico.

Calaveras County

Murphys, Murphys Hotel (Mitchler Hotel), Main and Algiers Streets.

Colusa County

Grimes vicinity, Newt Rancheria, 1 mile southeast of Grimes on California 45.

Contra Costa County

Byron vicinity, Marsh, John, Home, Marsh Creek Road, approximately 6 miles west of Byron.
Danville vicinity, O'Neill, Eugene, House, 1.5 miles west of Danville.
Martinez, John Muir National Historic Site, 4440 Alhambra Avenue.
Richmond vicinity, East Brother Island Light Station, on the East Brother Island west of Point San Pablo.

El Dorado County

Placerville vicinity, *Coloma, 7 miles northwest of Placerville on California 49.

Fresno County

Fresno, Old Fresno Water Tower, 2444 Fresno Street.

Humboldt County

Eureka vicinity, *Gunter Island Site 67 (Tolowot), northeast end of Gunter Island in Humboldt Bay north of Eureka.

Imperial County

Winterhaven, *Yuma Crossing and Associated Sites (see Yuma County, Ariz.).

Inyo County

China Lake vicinity, *Big and Little Petroglyph Canyons, China Lake Naval Ordnance Test Station.

Kern County

Bakersfield, *Walker Pass, 6 miles northwest of Bakersfield on California 178.
 Lebec vicinity, Fort Tejon, 3 miles northwest of Lebec on U.S. 99.

Kings County

Kettleman City vicinity, Witt Site, 12 miles west of Kettleman City on Utica Avenue.

Lake County

Lakeport, Lake County Courthouse, 255 North Main Street.

Los Angeles County

Encino, Rancho El Encino (Los Encinos State Historic Park), 16755 Moorpark Street.

Long Beach, *Los Cerritos Ranch House, 4600 Virginia Road.

Los Angeles, Barnsdall Park, 4800 Hollywood Boulevard.

Los Angeles, Bradbury Building, 304 South Broadway.

Los Angeles, Ennis House, 2607 Glendower Avenue.

Los Angeles, Freeman, Samuel, House, 1962 Glendora Way.

Los Angeles, Los Angeles Central Library, 630 West 5th Street.

Los Angeles, Lovell House, 4616 Dundee Drive.

Los Angeles, Lummis Home, 200 E Avenue 43.

Los Angeles, Schindler House, 833 North Kings Road.

Los Angeles, Snowden, John, House, 5121 Franklin Avenue.

Los Angeles, Storer House, 8161 Hollywood Boulevard.

Pasadena, Gamble House (Greene and Greene Library), 4 Westmoreland Place.

Pasadena (San Marino), Old Mill (El Molino Viejo), 1120 Old Mill Road.

Pomona, Palomares Adobe, corner of Arrow Highway and Orange Grove Avenue.

San Fernando, Lopez Adobe, 1100 Pio Street.

San Fernando, San Fernando Mission, 15151 San Fernando Mission Boulevard.

San Fernando vicinity, *Well No. 4, Pico Canyon Oil Field, 9.6 miles north of San Fernando and west of U.S. 99.

San Gabriel, San Gabriel Mission, Junipero Street and West Mission Drive.

Tujunga, Bolton Hall (Tujunga City Hall), 10116 Commerce Avenue.

Wilmington, Banning Home, 401 East M Street.

Wilmington, Drum Barracks, 1053 Carey Street.

Madera County

Madera, Madera County Courthouse, 210 West Yosemite Avenue.

Marin County

San Rafael, Miller Creek School Indian Mound, 2355 Las Gallinas Avenue.

Tiburon vicinity, Angel Island, southeast of Tiburon in San Francisco Bay.

Mendocino County

Mendocino, Mendocino and Headlands Historic District, bounded approximately by the Pacific Ocean on the west and south, Little Lake Street on the north, and U.S. 1 on the east.

Mono County

Bridgeport vicinity, *Bodie Historic District, 7 miles south of Bridgeport on U.S. 395, then 12 miles east on secondary road.

Monterey County

Carmel *Carmel Mission, Rio Road.

Jolon vicinity, Dutton Hotel, Stagecoach Station, King City-Jolon Road.

Monterey, El Castillo, on Presidio Headlands facing Lighthouse Avenue.

Monterey, *Larkin House, 404 Calle Principal.

Monterey, *Monterey Old Town Historic District. Two districts. The southern one

bounded by Duina Street on the west, Madison Street on the east, Folk Street on the south, and Jefferson Street on the north; northern district bounded by Pacific Street on the west, Scott Street on the south, by Alvarado Street on the east, and Decatur Street on the north.

Monterey, Monterey State Historic Park, Houston Street between Pearl and Webster.

Monterey, *Royal Presidio Chapel, 550 Church Street.

Monterey, *U.S. Customhouse (Old Customhouse), Calle Principal at Decatur Street.

Nevada County

French Corral vicinity, Bridgeport Covered Bridge, across the South Fork of the Yuba River on the road between French Corral and Smartville.

French Lake vicinity, Meadows Lake Petroglyphs, east of French Lake, sec. 23, T. 18 N., R. 13 E.

Truckee vicinity, *Donner Camp, 2.6 miles west of Truckee on U.S. 40.

Orange County

San Juan Capistrano, Mission San Juan Capistrano, Camino Capistrano and Ortega Highway.

Yorba Linda, Nixon, Richard, Birthplace, 18061 Yorba Linda Boulevard.

Placer County

Auburn, Old Auburn Historic District, bounded approximately by Interstate 80, Maple Street, and Hamilton Lane on the north, High Street on the south, and including the westerly frontage on Spring Street, the easterly frontage on Lincoln Way and Sacramento Street, and the Traveler's Rest and Winery property at the southeast of the historic district.

Plumas County

Gold Lake vicinity, Lakes Basin Petroglyphs, northwest of Gold Lake, sec. 8, T. 21 N., R. 12 E.

Riverside County

Riverside, Mission Inn, 3049 Seventh Street.

Sacramento County

Locke, Locke Historic District, bounded on the west by the Sacramento River, on the north by Locke Road, on the east by Alley Street, and on the south by Levee Street.

Locke vicinity, Delta Meadows Site, 1 mile northeast of Locke.

Sacramento, California Governor's Mansion, southwest corner of 16th and H Streets.

Sacramento, Joe Mound, Discovery Park, 0.5 mile east of Interstate 5.

Sacramento, *Old Sacramento Historic District, junctions of U.S. 40, 50, 99, and California 16 and 24.

Sacramento, *Pony Express Terminal (B. F. Hastings Building), 1006 Second Street.

Sacramento, Stanford-Lathrop Home, 800 N Street.

Sacramento, *Sutter's Fort, 2701 L Street.

Sacramento, Woodlake Site, 0.5 mile southwest of EXOA radio towers.

Sacramento vicinity, Bennett Mound, 9 miles northwest of Sacramento on the Garden Highway.

San Benito County

San Juan Bautista, *Ansa House, Third and Franklin Streets.

San Juan Bautista, *Castro (Jose) House, south side of the Plaza.

San Juan Bautista, *San Juan Bautista Plaza Historic District, beginning at the intersection of Washington Street and Second Street, northwest along Second to Mariposa Street, northeast along Mariposa to First Street, southeast on First to Washington Street, southwest on Washington to Second Street.

San Diego County

Camp Joseph H. Pendleton, *Las Flores Adobe, Stuart Mesa Road, about 7 miles north of its junction with Vandegrift Boulevard.

Camp Pendleton, Santa Margarita Ranch House, off Vandegrift Boulevard.

Coronado, Hotel Del Coronado, 1500 Orange Avenue.

Oceanside vicinity, *San Luis Rey Mission Church, 4 miles east of Oceanside on California 76.

San Diego, *Estadillo House, 4000 Mason Street.

San Diego, *Old Mission Dam, north side of Mission Street-Gorge Road.

San Diego, Old Town San Diego Historic District, approximately from the easterly line of Wallace and Washington Streets to the westerly line of Twigs Street, and from the northerly line of Congress Street to the southerly line of Juan Street.

San Diego, *San Diego Presidio, Presidio Park.

San Diego, *Star of India, San Diego Embarcadero.

San Diego, Villa Montecuma (Jesse Shepard House), 1925 K Street.

San Diego vicinity, Cabrillo National Monument, 10 miles from San Diego off U.S. 101, near the southern tip of Point Loma.

San Diego vicinity, *San Diego Mission Church, 5 miles east of Old Town San Diego on Friars Road.

Spring Valley, *Bancroft, Hubert H., Ranch House, Bancroft Drive off California 94.

Vista vicinity, *Guejome Ranch House, 2.5 miles northeast of Vista.

Warner Springs vicinity, *Oak Grove Butterfield Stage Station, 13 miles northwest of Warner Springs on California 79.

Warner Springs vicinity, *Warner's Ranch, 3 miles south of Warner Springs on secondary road.

San Francisco County

San Francisco, *C. A. Thayer, San Francisco Maritime State Historic Park.

San Francisco, Feustel Octagon House, 1067 Green Street.

San Francisco, *Flood, James C., Mansion, California and Mason Streets.

San Francisco, Golden Gate Park Conservatory, Mount Lick, north of John F. Kennedy Drive, at the east end of Golden Gate Park.

San Francisco, Halliday Building, 130 Sutter Street.

San Francisco, *Jackon Square Historic District*, bounded roughly by Sansome Street on the east; by Washington Street on the south; by Columbus Avenue (between Washington and Kearny) and Kearny Street on the west; and on the north by an irregular line midway between Pacific Avenue and Broadway.

San Francisco, **Old United States Mint*, Fifth and Mission Streets.

San Francisco, *Phelps, Abner, House*, 329 Divisadero Street.

San Francisco, *Fort Point National Historic Site*, northern tip of San Francisco Peninsula on U.S. 101 and Interstate 480. San Francisco, **San Francisco Cable Cars*. San Francisco, *U.S. Post Office and Court-house*, northeast corner of Seventh and Mission Streets.

San Luis Obispo County

Nipomo, *Dana Adobe*, southern end of Oak Glen Avenue.

San Miguel, *Caledonia Adobe*, 0.5 mile south of 10th Street.

San Miguel, *Mission San Miguel*, U.S. 101.

San Mateo County

Belmont, **Ralston, William C., Home*, College of Notre Dame campus.

San Bruno vicinity, **San Francisco Bay Discovery Site*, 4 miles west of San Bruno via Skyline Drive and Sneath Lane.

Santa Barbara County

Lompoc vicinity, **La Purissima Mission*, 4 miles east of Lompoc.

Los Alamos vicinity, **Los Alamos Ranch House*, 3 miles west of Los Alamos on old U.S. 101.

Santa Barbara, **Gonzales House*, 835 Laguna Street.

Santa Barbara, **Santa Barbara Mission*, 2301 Laguna Street.

Santa Clara County

Gilroy Hot Springs vicinity, *Coyote Creek Archeological District*, Henry W. Coe State Park, north of Gilroy Hot Springs.

Gilroy vicinity, **Norris, Frank, Cabin*, 10 miles west of Gilroy via California 152 and secondary roads.

San Jose vicinity, **New Almaden*, 14 miles south of San Jose on County Route 98.

Santa Cruz

Santa Cruz, *Octagon Building*, corner of Front and Cooper Streets.

Shasta County

Cottonwood vicinity, *Reading Adobe Site*, Adobe Lane, 5 miles east of the center of Cottonwood.

Millville vicinity, *Coe Creek Petroglyphs*, 2.25 miles east of Millville.

Millville vicinity, *Derach-Taylor Petroglyphs*, on Derach Road, 5 miles east of Deschutes Road, southeast of Millville.

Redding vicinity, *Benton Tract Site*, 0.5 mile northeast of Redding on the Sacramento River.

Redding vicinity, *Olsen Petroglyphs*, Bear Mountain Road, northeast of Redding.

Shasta, *Shasta State Historic Park*, U.S. 299.

Sierra County

Gold Lake vicinity, *Hawley Lake Petroglyphs*, west of Gold Lake, sec. 14, T. 21 N., R. 11 E.

Loyalton vicinity, *Kyburg Flat Site*, south of Loyalton in Tahoe National Forest on Henderson Pass Road.

Truckee vicinity, *Sardine Valley Archeological District*, Portions of secs. 7 and 18, T. 19 N., R. 17 E.

Verdi vicinity, *Stampede Site*, west of Verdi, sec. 17, T. 19 N., R. 17 E.

Siskiyou County

Dorris vicinity, **Lower Klamath National Wildlife Refuge*, Lower Klamath Lake, east of Dorris (also in Klamath County, Oreg.).

Solano County

Benicia, *Benicia Capitol-Courthouse*, First and G Streets.

Vacaville vicinity, *Peña Adobe*, 3 miles southwest of Vacaville on Interstate 80.

Sonoma County

Bodega Bay vicinity, *The Ranch Site*, 2 miles west of Bodega Bay.

Fort Ross vicinity, **Fort Ross*, north of Fort Ross on California 1, Fort Ross State Historical Monument.

Fort Ross vicinity, **Fort Ross Commander's House*, north of Fort Ross on California 1, Fort Ross State Historical Monument.

Glen Ellen vicinity, **London, Jack, Ranch*, 0.4 mile west of Glen Ellen, Jack London Historical State Park.

Jenner vicinity, *Duncans Landing Site*, south of Jenner on U.S. 1.

Petaluma vicinity, **Petaluma Adobe*, 4 miles east of Petaluma on Casa Grande Road.

Santa Rosa, **Burbank, Luther, House and Garden*, 200 block Santa Rosa Avenue.

Sonoma, **Sonoma Plaza*, center of Sonoma.

Stewarts Point vicinity, *Salt Point State Park Archeological District*, 15 miles south of Stewarts Point on California 1.

Stanislaus County

La Grange vicinity, *Gold Dredge*, off county road.

Trinity County

Weaverville, *Weaverville Historic District*, both sides of Main Street.

Tuolumne County

Sonoma vicinity, **Columbia Historic District*, 4 miles northwest of Sonoma on California 49.

Ventura County

Oxnard, *Oxnard Public Library* (Oxnard Chamber of Commerce-Art Club of Oxnard), 424 South C Street.

Ventura, *Ventura County Courthouse*, 501 Poll Street.

Yolo County

Broderick, **First Pacific Coast Salmon Cannery Site*, on the Sacramento River, opposite the foot of K Street.

Woodland, *Woodland (Hershey) Opera House*, 320 Second Street.

COLORADO

Arapahoe County

Strasburg vicinity, *Comanche Crossing of the Kansas Pacific Railroad*, on the Union Pacific Railroad tracks east of the Strasburg depot.

Archuleta County

Chimney Rock vicinity, *Chimney Rock Archeological Site*, San Juan National Forest, 2 miles east of the Piedra River and 1.5 miles north of Colorado 151.

Clear Creek County

Georgetown, *Hôtel de Paris*, Alpine Street.

Georgetown, *Toll House* (Julius G. Poble House), south side of town adjacent to Interstate 70 right-of-way.

Georgetown vicinity, *Ore Processing Mill and Dam*, approximately 1 mile southwest of Georgetown, adjacent to Interstate 70 and Clear Creek.

Georgetown-Silver Plume vicinity, **Georgetown-Silver Plume Historic District*.

Silver Plume, *Silver Plume Depot*, Interstate 70.

Silver Plume vicinity, *Lebanon and Everett Mine Tunnels*, northeast of Silver Plume, adjacent to Interstate 70 right-of-way.

Conejos County

Sanford vicinity, **Pike's Stockade*, 4 miles east of Sanford on Colorado 136.

Costilla County

Fort Garland, *Fort Garland*, on Colorado 159, one block south of U.S. 10-160.

Denver County

Denver, *Broken Palace Hotel*, 17th Street and Tremont Place.

Denver, *Byers-Evans Home*, 1310 Bannock Street.

Denver, *Constitution Hall* (First National Bank Building), 1507 Blake Street.

Denver, *Daniels and Fisher Tower*, 1101 16th Street.

Denver, *Emmanuel Shearith Israel Chapel* (Emmanuel Episcopal Chapel), 1201 10th Street.

Denver, *Four Mile House*, 715 South Forest Street.

Denver, *Governor's Mansion*, 400 East Eighth Avenue.

Denver, *Grant-Humphreys House*, 770 Pennsylvania Street.

Denver, *Moffat, David H., House*, 808 Grant Street.

Denver, *St. Elizabeth's Church*, 1062 11th Street.

Denver, *Trinity United Methodist Church*, East 18th Avenue and Broadway.

El Paso County

Colorado Springs vicinity, **Pikes Peak*, 15 miles west of Colorado Springs, Pike National Forest.

Gilpin County

Central City, **Central City Historic District*.

Jefferson County

Golden vicinity, *Mount Vernon House* (Robert W. Steele House), about 1 mile south of the Golden city limits at the junction of Interstate 70, Colorado 26, and Mount Vernon Canyon Road.

La Plata County

Durango, **Durango-Silverton Narrow Gauge Railroad*, right-of-way between Durango and Silverton (also in San Juan County).

Lake County

Leadville, *Dexter Cabin*, 912 Harrison Avenue.

Leadville, *Healy House*, 912 Harrison Avenue.

Leadville, **Leadville Historic District*.

Larimer County

Fort Collins vicinity, **Lindenmeier Site*, 28 miles north of Fort Collins.

Las Animas County

Trinidad, *Baca House and Outbuilding*, 800 block of Main Street.

Trinidad, *Bloom, Frank G., House*, 300 block of Main Street.

Trinidad vicinity, **Raton Pass*, U.S. 85-87, Colorado-New Mexico border (see Colfax County, N. Mex.).

Montezuma County

Cortez vicinity, *Borensvep National Monument*, northwest of Cortez (also in San Juan County, Utah).

Cortez vicinity, *Mesa Verde National Park*, 10 miles east of Cortez on U.S. 160.

Cortez vicinity, *Yucca House National Monument*, 12 miles south of Cortez via U.S. 666 and secondary roads.

Pleasant View vicinity, **Lowry Ruin*, 30 miles northwest of Cortez via U.S. 160 and secondary road.

Montrose County

Montrose vicinity, *Ute Memorial Site*, 2 miles south of Montrose on U.S. 550.

Otero County

La Junta vicinity, *Bent's Old Fort National Historic Site*, 8 miles east of La Junta on Colorado 104.

Pitkin County

Redstone vicinity, *Osgood Castle (Cleholm)*, approximately 1 mile south of Redstone on Colorado 133.

San Juan County

Durango-Silverton Narrow Gauge Railroad (see La Plata County).
Silverton, *Silverton Historic District*.

San Miguel County

Telluride, *Telluride Historic District*.

Teller County

Cripple Creek, *Cripple Creek Historic District*.

Weld County

Greeley, *Meeker Memorial Museum*, 1324 Ninth Avenue.
Platteville vicinity, *Fort Vasquez*, on U.S. 85.

CONNECTICUT

Fairfield County

Bridgeport, Brooks, Captain John, Senior, House, 199 Pembroke Street.

Darien, *Mather (Stephen Tyng) Home*, Stephen Mather Road.

Fairfield, Bronson Windmill, 3015 Bronson Road.

Fairfield, *Fairfield Historic District*, all buildings bordering the Old Post Road from its intersection with the Post Road to the intersection with Turney Road (including buildings southeast and northeast of the Town Hall on both sides of Beach Road and the Old Burying Ground).

Fairfield, *Southport Historic District*, bounded generally by the New York, New Haven & Hartford Railroad on the north; by Mill River and Southport harbor on the south; on the west by Old South Road (including properties on both sides of the road); and on the east by Rose Hill Road (including properties on Church Street and both sides of Rose Hill Road, but excluding commercial and industrial property along Pequot Avenue).

Greenfield Hill, *Greenfield Hill Historic District*, the area comprising the village green and adjacent properties on Meeting House Lane, Hillside Road, and Old Academy Road; extending south on both sides of Bronson Road and Hillside Road to a point beyond the Old Cemetery on the former and to a point beyond Verna Hill Road on the latter.

New Canaan, *Rogers (John) Studio*, 10 Cherry Street.

Norwalk, *Lockwood-Mathers Mansion*, 295 West Avenue.

Redding, Putnam Memorial State Park, intersection of Routes 58 (Black Rock Turnpike) and 107 (Park Road).

Ridgefield, *Remington (Frederic) House*, Stamford, Hoyt-Barnum House, 13 Bedford Street.

Hartford County

East Granby, *Old Negate Prison*, Newgate Road.

Farmington, *Stanley-Whitman House*, 37 High Street.

Glastonbury, Welles, Gideon, House, 37 Hebron Avenue.

Hartford, *Armstrong (Samuel Colt Home)*, 80 Wethersfield Avenue.

Hartford, *Barnard (Henry) House*, 118 Main Street.

Hartford, Bull (Amos) House, 350 Main Street.

Hartford, Bushnell Park, bounded by Elm, Jewell, and Trinity Streets.

Hartford, Butler-McCook Homestead, 396 Main Street.

Hartford, Cheney Building (G. Fox Building), 942 Main Street.

Hartford, *Connecticut State Capitol*, Capitol Avenue.

Hartford, *Connecticut Statehouse (Old Statehouse)*, Main Street at Central Row.

Hartford, Day House, 77 Forest Street.

Hartford, Stowe, Harriet Beecher, House, 73 Forest Street.

Hartford, *Twain (Mark) House*, 351 Farmington Avenue.

Hartford, Wadsworth Athenaeum, 25 Atheneum Square North.

West Hartford, *Webster (Noah) Birthplace*, 227 South Main Street.

Wethersfield, *Buttolph-Williams House*, 249 Broad Street.

Wethersfield, Deane, Silas, House, 203 Main Street.

Wethersfield, Old Wethersfield Historic District, bounded on the north and west by the New York, New Haven & Hartford Railroad tracks, on the east by Interstate 91, and also on the north by Wethersfield Cove.

Wethersfield, *Webb (Joseph) House*, 211 Main Street.

Windsor, Ellsworth, Oliver, Homestead (Elmwood), 778 Palladio Avenue.

Litchfield County

Colebrook, Phelps, Arah, Inn, east side of Connecticut 183 at its junction with Prock Hill Road.

Litchfield, *Litchfield Historic District*, east and west sides of North and South Streets (to rear property lines), Prospect Street to Gallows Lane, village green between East and West Streets, and structures on north-east side of the green.

Litchfield, *Revere (Tapping) House and Late School*, South Street.

Woodbury, Bacon, Jabez, House, north side of Hollow Road just above the intersection with U.S. 6.

Woodbury, Glebe House, south side of Hollow Road at the head of Hollow Road No. 2.

Woodbury, *Woodbury Historic District No. 1*, both sides of Main Street (U.S. 6) for a distance of 2 miles; the southern boundary is the Davis parcel (No. 1) and the Bull parcel (No. 2); the northern limit is the Stewart parcel (No. 127) and the Morgan parcel (No. 168) at the boundary of the regional school property (No. 14); also included are Hollow Road and Sycamore Street to the Pomperaug River, Judson Avenue to the river, School Street, Orenburg and Park Roads up to Orenburg Park, and Pleasant Street including the Merriman parcel (No. 128).

Middlesex County

East Haddam, *The Goodspeed Opera House*, Norwich Road.

Middletown, Alsop House (Davison Art Center), 301 High Street.

Middletown, Russell House, corner of Washington and High Streets.

Middletown, Weimore, Seth, House (Oak Hill), northwest corner of Route 66 and Camp Road.

New Haven County

Ansonia, Mansfield, Richard, House, 35 Jewett Street.

Derby, *The Sterling Opera House*, northwest corner of Fourth and Elizabeth Streets.

New Haven, *Connecticut Agricultural Experiment Station*, 123 Huntington Street.

New Haven, *Connecticut Hall, Yale University*, bounded by High, Chapel, Elm, and College Streets.

New Haven, *Dana (James Dwight) House*, 24 Hillhouse Avenue.

New Haven, *First Telephone Exchange*, 741 Chapel Street.

New Haven, Fort Nathan Hale, at the southern end of Woodward Avenue.

New Haven, *Marsh (Othniel C.) House*, 360 Prospect Street.

New Haven, *New Haven Green Historic District*, bounded by Chapel, College, Elm, and Church Streets.

New Haven, *Wooster Square Historic District*, includes Wooster Square; all structures facing the square from Chapel, Academy, and Greene Streets and Wooster Place; those which face each other on Court Street between Academy and Olive; those facing south on Chapel from Olive to Interstate 91; those which face north on Chapel from Olive to Chestnut; and a few structures facing south on Wooster and north on Columbus Streets.

Northford, Williams, Warham, House, intersection of Old Post Road with Connecticut 17 and 22.

Southbury, *Southbury Historic District No. 1*, Main Street from Woodbury town line to Old Waterbury Road.

New London County

East Lyme, Lee, Thomas, House, southeast corner of Connecticut 156 and Giant's Neck Road.

Groton, Fort Griswold, bounded by Baker Avenue, Smith Street, Park Avenue, Monument Avenue, and the Thames River.

Lebanon, *Trumbull (John) Birthplace (Governor Jonathan Trumbull House)*, The Common.

Lebanon, War Office (Captain Joseph Trumbull Store and Office), West Town Street.

Myatie, *Charles W. Morgan, Myatie Seaport*, New London, Deshon-Allyn House, 613 Williams Street.

New London, Hempstead, Nathaniel, House (Old Huguenot House), corner of Jay, Hempstead, Colt, and Truman Streets.

New London, Hempstead, Joshua, House, 11 Hempstead Street.

New London, *Monte Cristo Cottage (Eugene O'Neill House)*, 325 Pequot Avenue.

New London, New London County Courthouse (State Courthouse), 70 Huntington Street.

New London, New London Customhouse, 150 Bank Street.

New London, New London Public Library, 63 Huntington Street.

New London, Shaw Mansion, 11 Blinman Street.

New London, Whale Oil Row, 105-119 Huntington Street.

Norwich, Backus, Nathaniel, House, 44 Rockwell Street.

Norwich, Converse House and Barn, 185 Washington Street.

Norwich, East District School, 365 Washington Street.

Norwich, Little Plain Historic District, the east and west sides of Broadway and Union Street to the rear property lines extending from Otis Street on the northwest to 161 Broadway and 71 Union Street on the south; the south side of Otis Street to the northeast boundary of the sixth property on that street; includes all residences around Little Plain Park and Huntington Place.

Norwichtown, Bradford-Huntington House, 16 Huntington Lane.

Norwichtown, Carpenter House (Red House), 55 East Town Street.

Norwichtown, Carpenter, Joseph, Silvermith Shop, 71 East Town Street.

Norwichtown, Charlton, Captain Richard, House, 12 Mediterranean Lane.
 Norwichtown, Huntington, General Jedidiah, House, 23 East Town Street.
 Norwichtown, Huntington, Governor Samuel, House, 34 East Town Street.
 Norwichtown, Lathrop, Dr. Daniel, School, 69 East Town Street.
 Norwichtown, Lathrop, Dr. Joshua, House, 377 Washington Street.
 Norwichtown, Leggettwell Inn, 348 Washington Street.
 Norwichtown, Turner, Dr. Philip, House, 29 West Town Street.
 Old Lyme, Old Lyme Historic District, along Lyme Street from Shore Road to Hill Lane along the Old Boston Post Road from Hill Lane to Rose Lane.

Tolland County

Cowenry, Hale, Nathan, Homestead (Deacon Richard Hale House), South Street.
 Mansfield Center, Williams, Eleazer, House, east side of Storrs Road just south of the intersection with Dobbs Road.

Windham County

Brooklyn, Trinity Church, east side of Church Street.
 Canterbury, Clark, Captain John, House (Dyer-Clark House), east side of Route 169.
 Canterbury, Payne, Eliza, House (Prudence Crawford House), southwest corner of the intersection of Connecticut 14 and 169.
 Chaplin, Witter House, Chaplin Street.
 Whitmanville, Wilson, William, Stone House, 561 Main Street.
 Windham Center, Hunt, Dr. Chester, Office, Windham Center Road.

DELAWARE

Kent County

Cowgill vicinity, Eight-square Schoolhouse, east of Cowgill of Delaware 9.
 Dover, Loocherman Hall, Delaware State College campus.
 Dover, Old Statehouse, The Green.
 Dover vicinity, "Dickinson (John) House, 5 miles southeast of Dover and 3 miles east of U.S. 119 on Killebuck Road.
 Dutch Neck Crossroads vicinity, Allen House, Dutch Neck Road east of Delaware 9.
 Kenton vicinity, "Appendix, c. 1 mile west of Kenton on Delaware 300.
 Magnolia, Louber, Mathew, House, east of Main Street, north of the intersection.
 Milford, Purson Thorne Mansion, 501 North-west Front Street.
 Smyrna, Belmont Hall, 1 mile south of Smyrna on U.S. 13.

New Castle County

Centerville, Center Meeting and Schoolhouse, Centermeeting Road.
 Claymont, Blockhouse and Robinson House, Nazam's Corner.
 Delaware City, Fort Delaware on Pea Patch Island, Pea Patch Island in the Delaware River.
 New Castle, "New Castle Historic District, bordered by Harmony Street, The Strand, Third Street, and Delaware Street.
 New Castle Hundred, Buena Vista, on U.S. 13, 1.5 miles south of its junction with U.S. 42.
 Newark, Rotherham Mill House, 318 Harmony Road.
 Odessa, "Corbit-Sharp House, southwest corner of Main and Second Streets.
 Odessa, Odessa Historic District, bounded by Appomattock Creek on the southeast; by the rear property lines of properties fronting on High Street on the northeast; on the northwest by Fourth Street; and on the southwest by the rear lines of properties fronting on Main Street.

Wilmington, Brandywine Village Historic District, bounded roughly by Tenth Street, 22d Street, Vandover Avenue, Mabel Street, and Brandywine Creek.
 Wilmington, Brack's Mill Area (Henry Clay Village), Brack's Lane and Creek Road.
 Wilmington, Dingee, Jacob, House, 106 East Seventh Street.
 Wilmington, Dingee, Obadiah, House, 107 East Seventh Street.
 Wilmington, Ferris, Zachariah, House, 414 West Second Street.
 Wilmington, "Fort Christina, East Seventh Street and the Christina River, Fort Christina State Park.
 Wilmington, "Holy Trinity (Old Swedes) Church, Seventh and Church Streets.
 Wilmington, Louisers (Upper Louisers and Black Gates), 10 Black Gates Road.
 Wilmington, Mendenhall, Captain Thomas, House, 205 East Front Street.
 Wilmington, Starr House, 1310 King Street.
 Wilmington vicinity, "Eleutheria Mills, North of Wilmington on Delaware 141 at Brandywine Creek Bridge.
 Wilmington vicinity, The Waterbury Museum and Gardens, 6 miles northwest of Wilmington on Delaware 52.

Sussex County

Cool Spring vicinity, Fisher House, southeast of Cool Spring, Broadkill Hundred.
 Dagobert vicinity, Prince George's Chapel, east of Dagobert on Delaware 26.
 Georgetown, Old Sussex County Courthouse, South Bedford Street.
 Leves, Mault House, 543 Pilotown Road.

DISTRICT OF COLUMBIA

Washington

Adas Israel Synagogue, Third and G Streets NW.
 "Administration Building, Carnegie Institution of Washington, 1350 F Street NW.
 "American National Red Cross, 17th and D Streets NW.
 Anderson, Lars, House, 2118 Massachusetts Avenue NW.
 "Army Medical Museum (Medical Museum), Armed Forces Institute of Pathology Building, Walter Reed Army Medical Center, 19th Street and Penn Place, NW.
 Arts Club of Washington, 2017 I Street NW.
 Bank of Columbia, 2219 M Street NW.
 Battleground National Cemetery, 6625 Georgia Avenue NW.
 Central Public Library, Mount Vernon Square, 8th and K Streets NW.
 "Chapel Hill, Gallaudet College, Florida Avenue and Seventh Street NE.
 Chesapeake and Ohio Canal National Historical Park, 620 O Street SE.
 Christ Church, 620 O Street SE.
 Church of the Epiphany, 1317 Q Street NW.
 "City Hall (District Courthouse), Fourth and E Streets NW.
 Congressional Cemetery, 1801 E Street SE.
 Corcoran Gallery of Art, 17th Street at New York Avenue NW.
 Customhouse and Post Office, 1221 31st Street NW.
 Decatur House, 748 Jackson Place NW.
 Eastern Market, Seventh and C Streets SE.
 Executive Office Building, southeast corner, Pennsylvania Avenue and 17th Street NW.
 Folger Shakespeare Library, 201 East Capitol Street SE.
 Ford's Theatre National Historic Site, 10th Street NW, between E and F Streets.
 Frederick Douglass Home National Memorial, 1411 W Street SE.
 Freer Gallery of Art, 12th Street and Jefferson Drive SW.
 "Georgetown Historic District.
 Georgetown Market, 2375 M Street NW.
 Grace Protestant Episcopal Church, 1041 Wisconsin Avenue NW.

Halyon House, 3400 Prospect Street NW.
 Healy Building, Georgetown University, Georgetown University campus.
 Hewick (Christian) Mansion, 1307 New Hampshire Avenue NW.
 Jefferson Memorial, south bank of the Tidal Basin.
 "Lafayette Square Historic District, includes these buildings fronting on H Street, Jackson Place, Madison Place, and Pennsylvania Avenue.
 Lincoln Memorial, West Potomac Park.
 The Linden, 2501 Kalorama Road NW.
 The National Archives, Constitution Avenue between Seventh and Ninth Streets NW.
 "Octagon House, 1799 New York Avenue NW.
 "Old Naval Observatory, 23d and E Streets NW.
 "Old Patent Office, F Street between Seventh and Ninth Streets NW.
 Pan American Union, 17th Street between C Street and Constitution Avenue NW.
 Pennsylvania Avenue National Historic Site, Pearson Building, F and G Streets between Fourth and Fifth Streets NW.
 "Philadelphia (gundoli), Smithsonian Institution, Museum of History and Technology, 14th Street and Constitution Avenue NW.
 Pierce Mill, Rock Creek Park, northwest corner of Tilden Street and Beach Drive NW.
 "Rensselaer Museum, northeast corner of Pennsylvania Avenue and 17th Street NW.
 Rhodes Tavern (Hotel), 601-3 14th Street and 1431 F Street NW.
 "Richards, Salmon, House, 1361 Conover Street NW.
 Riggs National Bank (Washington Loan and Trust Co. Branch), southwest corner of Ninth and F Streets NW.
 "St. John's Church, 16th and E Streets NW.
 "Smithsonian Building, Jefferson Drive at 10th Street SW.
 Tariff Commission Building, E and F Streets between Seventh and Eighth Streets NW.
 "Tudor Place, 1644 31st Street NW.
 Union Station, Massachusetts and Delaware Avenues NW.
 Vigilant Firehouse, 1066 Wisconsin Avenue NW.
 Washington Monument, The Mall between 14th and 17th Streets.
 "Wilson, Woodrow, House, 2340 S Street NW.
 Winder Building, 604 17th Street NW (northwest corner 17th and F Streets).

FLORIDA

Alachua County

Cross Creek, Ravellins, Marjorie Einnan, House, Florida 325, 0.25 mile south of the Creek.

Baker County

Onusta vicinity, Onusta Battlefield, 2 miles east of Onusta on U.S. 90.

Citrus County

Crystal River vicinity, Crystal River Indian Mounds, 2 miles northwest of Crystal River on U.S. 19-98.
 Homosassa, Yaloe Sugar Mill Ruins, Florida 400 of U.S. 19.

Dade County

Cape Florida, Cape Florida Lighthouse, Southeastern tip of Key Biscayne off U.S. 1.
 Miami, Flanery (James Derringer Estate), 3251 South Miami Avenue.

Duval County

Jacksonville, Kingsley Plantation, Florida AIA.
 Jacksonville vicinity, Fort Caroline National Memorial, 10 miles east of Jacksonville.
 Jacksonville vicinity, Yellow Flag Fort, south of Florida 106 on New Berlin Road.

Escambia County

Pensacola, *Fort San Carlos de Barrancas, U.S. Naval Air Station.

Pensacola, Lavale House, 208 East Church Street.

Pensacola, Pensacola Historic District, the historic district is within the area bounded by the following streets: beginning at the intersection of Gimble Street and Pensacola Bay, west on Gimble to Barracks; north on Barracks to Main; west on Main to a point 82.5 feet west of Palafox, then north to Zaragoza; east on Zaragoza to Palafox; north on Palafox to Government; east on Government to Jefferson; north on Jefferson to a point 172 feet north of Government; east on this line to Tarragona; north on Tarragona to Romana; east on Romana to a point 224 feet west of Alcaniz; north on this line to Garden; east on Garden to Alcaniz; north on Alcaniz to Chase; east on Chase to Florida Blanca; south on Florida Blanca to Romana; east on Romana to Ninth Avenue; south on Ninth to Pensacola Bay and along the shoreline to the starting point.

Pensacola, *Plaza Ferdinand VII, Palafox Street between Government and Zaragoza Streets.

Pensacola Beach vicinity, Fort Pickens, U.S. 98 west of Pensacola Beach.

Flagler County

Bunnell vicinity, Bulow Plantation Ruins, southeast of Bunnell off Florida S-5A.

Indian River County

Sebastian vicinity, *Pelican Island National Wildlife Refuge, east of Sebastian in the Indian River.

Sebastian vicinity, Site of Salvors Camp for Spanish Wrecks (1715), between the town of Sebastian and Sebastian Inlet on the Atlantic Ocean.

Lee County

Fort Myers Beach vicinity, Mound Key, south of Fort Myers Beach in Koresan State Park, on Estero Bay.

Leon County

Tallahassee, Bellevue, southwest of Tallahassee, on Big Bend Pioneer Farm.

Tallahassee, Cascades Park, bounded roughly by Apalachee Parkway and East Bloxham Street on the north, Suwanee Street on the east, the State property line on the south and South Monroe and Meridian Streets on the west.

Tallahassee, The Columns (Benjamin Chaires House), corner of Adams Street and Park Avenue.

Tallahassee, Union Bank, 106 South Adams Street.

Tallahassee vicinity, Escambi (San Cosmo y San Damián de Escambi), 3 miles north-west of Tallahassee, adjacent to and north of Interstate 10, 0.5 mile west of Old Bainbridge Road.

Tallahassee vicinity, Lake Jackson Mounds, 4.5 miles north of Tallahassee via U.S. 27, on the south shore of Lake Jackson.

Tallahassee vicinity, *San Luis de Apalache, 2 miles west of Tallahassee on U.S. 90.

Woodville vicinity, Natural Bridge Battlefield, 6 miles east of Woodville on U.S. 319.

Manatee County

Bradenton vicinity, De Soto National Memorial, 5 miles west of Bradenton.

Ellenton, Gamble, Robert, House (Judah P. Benjamin Memorial), on U.S. 301.

Terra Ceia Island, Madira Bickel Mound, U.S. 19.

Monroe County

Dry Tortugas Islands, Fort Jefferson National Monument, 68 miles west of Key West in the Gulf of Mexico.

Key West, The Armory, 600 White Street.

Key West, Fort Zachary Taylor, U.S. Naval Station.

Key West, *Hemingway (Ernest) House, 907 Whitehead Street.

Key West, Key West Historic District, bounded roughly by the center line of Front Street projected to the harbor and running west to Simonton Street; along Simonton to Greene Street; along Greene to Elizabeth Street; along Elizabeth to Caroline Street; along Caroline to Grinnell; along Grinnell to James; along James to Frances; along Frances to Eaton; along Eaton to White; along White to Angela; along Angela to Margaret Street and Passover Lane; along Passover Lane to Windsor Lane; along Windsor to Elizabeth and Angela Streets; along Angela to Whitehead; along Whitehead to Southard; along Southard to Thomas; along Thomas to Fleming; along Fleming to Whitehead; along Whitehead to Greene; along Greene to Front; and along Front to the northern boundary of the U.S. Coast Guard property.

Okaloosa County

Fort Walton Beach, *Fort Walton Mound, U.S. 98.

Okeechobee County

Okeechobee vicinity, *Okeechobee Battlefield, 4 miles southeast of Okeechobee on U.S. 441.

Pinellas County

Safety Harbor vicinity, *Safety Harbor Site, Philippe Park, 1 mile northeast of Safety Harbor.

St. Johns County

St. Augustine, Alcazar Hotel, 79 King Street.

St. Augustine, Castillo de San Marcos National Monument, 1 Castillo Drive.

St. Augustine, *Cathedral of St. Augustine, Cathedral Street between Charlotte and St. Georges Streets.

St. Augustine, Linsley House, 241 St. George Street.

St. Augustine, *Lambias House, 31 St. Francis Street.

St. Augustine, *Oldest House, 14 St. Francis Street.

St. Augustine, Rodriguez-Acero-Sanchez House, 52 St. George Street.

St. Augustine, St. Augustine Historic District, bounded on the north by Orange Street east to San Marcos Avenue; thence north-west along San Marcos to the northern boundary of Castillo de San Marcos, which is the northern district boundary; bounded on the east by the Matanzas River; the southern boundary is a line parallel to and 225 feet south of St. Francis Street extending west to the intersection with Cordova Street; thence north on Cordova Street to Bridge Street; west on Bridge to Granada Street; north on Granada to King Street; west on King to Seville Street; north on Seville to Valencia Street; east on Valencia to Cordova, and north on Cordova to Orange.

St. Augustine vicinity, Fort Matanzas National Monument, 15 miles south of St. Augustine.

St. Augustine Beach, Spanish Coquina Quarries, Florida AIA, Anastasia State Park.

Volusia County

New Smyrna Beach vicinity, New Smyrna Sugar Mill Ruins, 1 mile west of Florida 44.

New Smyrna Beach vicinity, Turtle Mound, Florida AIA, 9 miles south of New Smyrna Beach.

Ormond Beach, Ormond Garage, 79 East Granada Avenue.

Wakulla County

St. Marks, *Fort San Marcos de Apalache, 18 miles south of Tallahassee on U.S. 319 and Florida 363.

GEORGIA

Baldwin County

Milledgeville, Ashinson Hall, Georgia College, Georgia College campus.

Milledgeville, Old Governor's Mansion, 130 South Clark Street.

Milledgeville, Old State Capitol, Greene Street.

Barrow County

Winder vicinity, Fort Yargo, Fort Yargo State Park, Georgia 81.

Bartow County

Cartersville vicinity, *Etowah Mounds, 3 miles south of Cartersville on Georgia 61.

Bibb County

Macon, Anderson, Captain R. J., House, 1730 West End Avenue.

Macon, Anderson, Judge Chiford, House, 643 Orange Street.

Macon, Burke, Thomas C., House, 1085 Georgia Avenue.

Macon, Cannonball House (Judge Asa Holt House), 846 Mulberry Street.

Macon, Christ Episcopal Church, 538-566 Walnut Street.

Macon, Coates, Jerry, Cottage, 4589 Birrell Drive.

Macon, Coates House (Stratford Academy), 988 Bond Street.

Macon, Domingos House, 1261 Jefferson Terrace.

Macon, Emerson-Holmes Building, 566 Mulberry Street.

Macon, Goodall House, 618 Orange Street.

Macon, Grand Opera House (Academy of Music), 681 Mulberry Street.

Macon, Green-Poe House, 841-845 Poplar Street.

Macon, Hatcher-Groover-Schwartz House, 1144-1146 Georgia Avenue.

Macon, Holt House, 1129 Georgia Avenue.

Macon, Johnston-Hay House, 934 Georgia Avenue.

Macon, Lee, W. G., Alumni House (Bartlett House), 1270 Ash (Coleman) Street.

Macon, Mercer University Administration Building, Coleman Avenue.

Macon, Monroe-Dunlap-Snow House, 620 High Street.

Macon, Municipal Auditorium, 415-435 First Street.

Macon, Napier, Leroy, Home, 2215 Napier Avenue.

Macon, Ocmulgee National Monument.

Macon, Ruines-Carmichael House, 1163 Georgia Avenue.

Macon, St. Joseph's Catholic Church, 812 Poplar Street (831 New Street).

Macon, Small House (Napier-Small House), 156 Rogers Avenue.

Macon, Solomon-Curd House, 770 Mulberry Street.

Macon, Solomon-Smith-Martin House, 2619 Vineville Avenue.

Macon, Whigham-Hill-O'Neal Cottage, 535 College Street.

Bryan County

Richmond Hill vicinity, Fort McAllister, 10 miles east of U.S. 17 on Georgia 67.

Carroll County

Carrollton, Bonner-Sharp-Gunn House, West Georgia College campus.

Catoosa County

Chattanooga, Tenn., vicinity, Chickamauga and Chattanooga National Military Park, 9 miles south of Chattanooga on U.S. 27 (also in Hamilton County, Tenn.).

Chatham County

Savannah, Central of Georgia Railway Company Shop Property, between West Jones Street and Louisville Road.

Savannah, *Low (Juliette Gordon), Birthplace, 10 Oglethorpe Avenue East.

Savannah, *Savannah Historic District, bounded by East Broad, Gwinnett, West Broad Streets, and the Savannah River.

Savannah, Scarborough, William, House, 41 West Broad Street.

Savannah, Sturges, Oliver, House, 27 Abercorn Street.

Savannah vicinity, Fort Jackson, Islands Expressway, 3 miles east of Savannah on the Savannah River.

Savannah vicinity, Fort Pulaski National Monument, 17 miles east of Savannah, Cockspur Island.

Chattahoochee County

Fort Benning, Riverside (Quarters No. 1), 100 Vibbert Avenue.

Clarke County

Athens, Old North Campus, University of Georgia, University of Georgia campus.

Athens, Bishop House, Jackson Street, University of Georgia campus.

Athens, Old Lucy Cobb Institute Dormitory, University of Georgia, University of Georgia campus.

Athens, President's House, 570 Prince Street.

Athens, Wilkins House, 387 South Millidge Avenue.

Athens, Wilson-Lumpkin-Hall House, University of Georgia campus.

Cobb County

Marietta vicinity, Kennesaw Mountain National Battlefield Park, 2 miles west of Marietta.

Columbia County

Augusta vicinity, *Stallings Island, 8 miles northwest of Augusta in the Savannah River.

De Kalb County

Decatur, Old De Kalb County Courthouse (Civic Center), Court Square.

Early County

Blakely vicinity, *Kolomoki Mounds, 8 miles north of Blakely on U.S. 27, Kolomoki Mounds State Park.

Floyd County

Rome, Chieftains, 80 Chatillon Road.

Fulton County

Atlanta, Cyclorama of the Battle of Atlanta, Cherokee Avenue, Grant Park.

Atlanta, *Harris, Joel Chandler, House, 1050 Gordon Street SW.

Atlanta, Smith, Tullie, House, 3099 Andrews Drive NW.

Atlanta, State Capitol, Capitol Square.

Roswell, Barrington Hall, 60 Marietta Street.

Roswell, Bulloch Hall, Mimosa Boulevard.

Glynn County

Brunswick vicinity, Fort Frederica National Monument, 12 miles north of Brunswick.

Jekyll Island, Faith Chapel, Old Plantation Road.

Jekyll Island, Horton-duBignon House, Brewery Ruins, duBignon Cemetery, River-view Drive.

Jekyll Island, Rockefeller Cottage, 331 River-view Drive.

Gordon County

Calhoun vicinity, New Echota, north of Calhoun on Georgia 225.

Grady County

Beaumont vicinity, Swinsin Plantation (Cedar Grove), 1.5 miles west of Beaumont on Meridian Road.

Gwinnett County

Lawrenceville, Old Seminary Building (Lawrence Female Seminary Building) Perry Street.

Hancock County

Jewell vicinity, Shivers-Simpson House (Rock Mill), Mayfield Road, on the Ogeechee River.

Jenkins County

Millen vicinity, Birdsville Plantation, west of Millen on Route 2.

Liberty County

Midway vicinity, Fort Morris, about 10 miles east of Midway off Georgia 38 near the old town of Sunbury.

South Newport vicinity, *St. Catherine's Island, 10 miles off the Georgia coast between St. Catherine's Sound and Sapelo Sound.

Lumpkin County

Dahlonega, Dahlonega Courthouse Gold Museum, U.S. 19.

McDuffie County

Thomson vicinity, The Old Rock House, about 3 miles northwest of Thomson on Old Rock House Road.

McIntosh County

Darien vicinity, Fort King George, east of U.S. 17.

Macon County

Andersonville vicinity, *Andersonville National Historic Site, 1 mile east of Andersonville on Georgia 40 (also in Sumter County).

Morgan County

Madison vicinity, Cedar Lane Farm, off Georgia 83 north of Madison.

Murray County

Chatsworth vicinity, Fort Mountain, Fort Mountain State Park, U.S. 76.
Spring Place, Vann House, intersection of U.S. 76 and Ga. 225.

Muscogee County

Columbus, The Cedars, 2039 13th Street.

Columbus, Columbus Historic District, roughly bounded by 9th Street on the north, 4th Street on the south, Second on the east, and Broadway on the west.

Columbus, Columbus Iron Works, 901 Front Avenue.

Columbus, Goethius-Wellborn House, 403 Broadway.

Columbus, Gunboats Muscogee and Chattahoochee, Fourth Street, west of U.S. 27.

Columbus, Joseph House, 628 Broadway.

Columbus, Octagon House, 537 First Avenue.

Columbus, The Pemberton House, 11 Seventh Street.

Columbus, St. Elmo, 2810 St. Elmo Drive.

Columbus, Springer Opera House, 106 10th Street.

Columbus, Walker-Peters-Langdon House, 716 Broadway.

Columbus, Wells-Bagley House, 22 Sixth Street.

Oconee County

Wakingsville, Eagle Tavern, intersection of U.S. 129 and 441.

Richmond County

Augusta, The Augusta Canal, beginning at the Augusta City Lock and Dam and running southeast 9 miles to a point approximately 1 block northwest of the intersection of Walton Way and Georgia Avenue.

Augusta, Mackay House, 1822 Broad Street.

Stephens County

Toccoa vicinity, *Traveler's Rest, 6 miles east of Toccoa on U.S. 123.

Sumter County

*Andersonville National Historic Site (see Macon County).

Taliaferro County

Crawfordville, Liberty Hall, Alexander Stephens Memorial Park, U.S. 278.

Thomas County

Thomasville, Brandon, Dr. David, House (Hayes House), 829 North Broad Street.

Thomasville, Bryan, Hardy, House (Cater House), 812 North Broad Street.

Thomasville, Jeffries House (Augustine Hansell House), 429 South Hansell Street.

Thomasville, Mitchell House (Munro House), 737 Remington Avenue.

Thomasville, Park Front (Frances Stone House), 711 South Hansell Street.

Thomasville, Ponder, Epraim, House, 324 North Dawson Street.

Thomasville, Scarborough House (C. W. Lapham House), 626 North Dawson Street.

Thomasville, Thomas County Courthouse, North Broad Street.

Thomasville, Wright House, 415 Fletcher Street.

White County

Cleveland, Old White County Courthouse.

Wilkes County

Washington, Campbell-Jordan House, 208 Liberty Street.

Washington, Washington-Wilkes Historical Museum, intersection of U.S. 78 and 378.

HAWAII

Hawaii County

Hawi vicinity, Island of Hawaii, *Mookini Heiau, northern tip of Hawaii, 1 mile west of Upolu Point Airport.

Hilo vicinity, Island of Hawaii, *Mauna Kea Adz Quarry, 25 miles northwest of Hilo via mountain trail.

Kailua-Kona, Island of Hawaii, *Kamakohou, Residence of King Kamehameha I, on the northwest edge of Kailua Bay, north and west of Kailua Wharf.

Kailua-Kona vicinity, Island of Hawaii, City of Refuge National Historical Park, 20 miles south of Kailua-Kona.

Kailua-Kona vicinity, Island of Hawaii, *Honokohau Settlement, Honokohau Bay, just north of Kailua-Kona.

Kawaihae vicinity, Island of Hawaii, *Puukohola Heiau, north end of Hawaii off Hawaii 26, about 1 mile southeast of Kawaihae.

Keauhou, Island of Hawaii, *Keauhou Holua Slide, east of Hawaii 18.

Naalehu vicinity, Island of Hawaii, *South Point Complex, South Cape, southern tip of Hawaii, Ka'u District.

Honolulu County

Haleiwa vicinity, Island of Oahu, *Pu'u o Mahuka Heiau, 4 miles northeast of Haleiwa on Hawaii 83, overlooking Waimea Bay.

Honolulu, Island of Oahu, *Iolani Palace, 364 South King Street.

Honolulu, Island of Oahu, *Kamehameha Church and Mission House, 937 Punchbowl Street and 553 South King Street.

Kaneohe vicinity, Island of Oahu, *Hulua Fishpond, on Kahana Bay, 13 miles north of Kaneohe on Hawaii 83, adjacent to Kahana Bay State Park.

Pearl City vicinity, Island of Oahu, *U.S. Naval Base, Pearl Harbor, 3 miles south of Pearl City on Hawaii 73.

Kauai County

Koloa, Island of Kauai, *Old Sugar Mill of Koloa.

Wailua vicinity, Island of Kauai, *Wailua Complex of Heiau, east coast of Kauai at the mouth of the Wailua River, Lihue District.

Waimea, Island of Kauai, *Cook Landing Site, 2 miles southwest of Hawaii 50.
 Waimea vicinity, Island of Kauai, Russian Fort, on Hawaii 50, 200 yards southwest of the bridge over the Waimea River.

Maua County

Hana vicinity, Island of Maui, *Pillenhale Heiau, 4 miles north of Hana, at the mouth of Honomalei Gulch near Kalaha Point.
 Kaupo vicinity, Island of Maui, *Looe Heiau, southeast coast of Maui on Hawaii 31, about 0.25 mile north of Kaupo.
 Lahaina, Island of Maui, *Lahaina Historic District, west side of Maui on Hawaii 30.
 Lanai City vicinity, Island of Lanai, *Kauaia Village Site, on Kaunaloa Bay, on the southwest cape of the Island of Lanai.
 Ulaeue vicinity, Island of Molokai, *Hoku-kano-Ulaeue Complex, along Hawaii 45.

IDAHO

Ada County

Boise, *Assay Office, 210 Main Street.
 Boise, Logan, Thomas E., House, 602 North Julia Davis Drive.
 Boise, Moore-DeLamar House, 807 Grove Street.

Bannock County

Fort Hall vicinity, *Fort Hall, 11 miles west of Fort Hall, Fort Hall Indian Reservation.

Butte County

Arco vicinity, *Experimental Breeder Reactor No. 1, National Reactor Testing Station.

Cassia County

Almo vicinity, *City of Rocks, City of Rocks State Park.

Clearwater County

Lolo Hot Springs vicinity, *Lolo Trail, parallel to U.S. 12 on ridges of Bitterroot Mountains, from Lolo Pass to Weippe (also in Idaho County and in Missoula County, Mont.).

Spaulding (park headquarters), Nez Perce National Historical Park, within an area 90 miles south and 150 miles east of Spaulding (also in Idaho, Lewis, and Nez Perce counties).

Weippe vicinity, *Weippe Prairie, south of Weippe and Idaho 11.

Idaho County

*Lolo Trail (see Clearwater County).
 Nez Perce National Historical Park (see Clearwater County).

Kootenai County

Cataldo, *Cataldo Mission, off U.S. 10.

Lemhi County

Tendoy vicinity, *Lemhi Pass, 12 miles east of Tendoy off Idaho 28 (also in Beaverhead County, Mont.).

Lewis County

Nez Perce National Historical Park (see Clearwater County).

Nez Perce County

Nez Perce National Historical Park (see Clearwater County).

ILLINOIS

Adams County

Quincy, Wood, John, Mansion, 425 South 12th Street.

Alexander County

Cairo, Magnolia Manor, 2700 Washington Avenue.

Champaign County

Urbana, Altgeld Hall, University of Illinois, University of Illinois campus, Wright and John Streets.

Urbana, *Morrow Plaza, University of Illinois, Gregory Drive at Matthew Avenue.

Cook County

Chicago, Auditorium Building, Roosevelt University, Michigan Avenue at Congress Street.

Chicago, Curran, Erie, Scott & Co., 1 South State Street.

Chicago, Charnley (James) House, 1945 North Astor Street.

Chicago, Clarke, Henry B., House, 4526 South Wabash Avenue.

Chicago, Gleason (John J.) House, 1809 South Prairie Avenue.

Chicago, *Hall House, the University of Illinois, Chicago Circle, 800 South Halsted Street.

Chicago, Kimball, William W., House, 1801 South Prairie Avenue.

Chicago, McClary Building, 218 South Wabash Avenue.

Chicago, Madlener, Albert F., House, 4 West Burton.

Chicago, Menard Building, 53 West Jackson Boulevard.

Chicago, *Fallman Historic District, bounded on the north by 103rd Street, on the east by C.S. and S.B. Railroad spur tracks, on the south by 119th Street, and on the west by Cottage Grove Avenue.

Chicago, Reliance Building, 32 North State Street.

Chicago, *Robie (Frederick C.) House, The University of Chicago, 5157 South Woodlawn Avenue.

Chicago, Rookery Building, 200 South La Salle Street.

Chicago, *Room 405 George Herbert Jones Laboratory, The University of Chicago, 8. Ellis Avenue between East 57th and 59th Streets.

Chicago, *Site of First Self-sustaining Nuclear Reaction, The University of Chicago, South Ellis Avenue between East 56th and 57th Streets.

Chicago, *Taft (Lorado) Midway Studios, The University of Chicago, 6016 South Ingleside Avenue.

Evansville, *Willard (Frances) House, 1739 Chicago Avenue.

Forest View, Chicago Foreign National Historic Site, Forest Preserve District, northwest corner of South Harlem Avenue at the Chicago Sanitary and Ship Canal.

Oak Park, Gale (Mrs. Thomas H.) House, 6 Elizabeth Court.

Oak Park, *Unity Temple, 875 Lake Street.

River Forest, Drummond (William E.) House, 509 Edgewood Place.

River Forest, Winslow (William H.) House and Stable, 515 Auvergne Place.

Riverside, *Conley, Avery, House, 300 Scottwood Road.

Riverside, *Riverside Landscape Architecture District, bounded on the north by 20th Street, on the east by Harlem Avenue, on the south by Ogden Avenue and the south bank of the Des Plaines River, and on the west by Forbes Road.

Winnetka, *Lloyd, Henry Demarest, Home (The Wayside), 830 Sheridan Road.

Fulton County

Canion, Orendorf, Ulysses G., House, 345 West Elm Street.

Hancock County

Nauvoo, *Nauvoo Historic District.

Henry County

Bishop Hill, Bishop Hill Historic District, bounded on the north by the South Branch of the Edwards River, then on a straight line along Jackson Street to Berling Street; west on Berling to Erickson Street; south on Erickson to the south edge of the corporate line; westward along the corporate line to Johnson Street; north on Johnson to Knox Street; west on Knox to Kronberg Street; north on Kronberg to Hudson Street; east on Hudson to Olson Street; north on Olson to Front Street; east on Front Street to Park Street; north on Park to River Street; east on River to an extension of Johnson Street, then north to the river.

Jo Daviess County

Galena, Galena Historic District, that part of the city of Galena recorded as the city limits on March 28, 1838, and all subdivisions added to the city prior to December 31, 1859.

Galena, *Grant (Ulysses S.) Home, 511 Bonthillier Street.

Knox County

Galesburg, *Old Main, Knox College, Knox College campus.

La Salle County

Ottawa vicinity, *Old Kaskaskia Village, 4 miles west of Ottawa on U.S. 6.

Ottawa vicinity, *Starved Rock, 6 miles from Ottawa on Illinois 71, Starved Rock State Park.

Madison County

Collinsville vicinity, *Cahokia Mounds, 7850 Collinsville Road, Cahokia Mounds State Park.

Massac County

Brookport vicinity, *Kincaid Site, east of Brookport on the Ohio River (also in Pope County).

Metropolis vicinity, Fort Massac, southeast of Metropolis on the Ohio River.

Morgan County

Jacksonville, Duncan Mansion (Elm Grove), 4 Duncan Place.

Ogle County

Grand Detour, *Deere (John) Home and Shop.

Peoria County

Kickapoo vicinity, Jubilee College, on U.S. 150 and Interstate 74, northwest of Kickapoo.

Pike County

Pittsfield, Pittsfield East School, 400 East Jefferson.

Pope County

*Kincaid Site (see Massac County).

Randolph County

Elle Grove vicinity, *Bernard (Pierre) House, Fort Kaskaskia State Park.

Modoc vicinity, *Modoc Rockshelter, 2 miles north of Modoc.

Prarie du Bocher vicinity, *Fort de Chartres, terminus of Illinois 155, west of Prairie du Bocher, Fort Chartres State Park.

Rock Island County

Rock Island, Rock Island Arsenal, Island of Rock Island.

St. Clair County

Cahokia, *Church of the Holy Family, East First Street.

East St. Louis, *Eads Bridge, spanning the Mississippi River (see St. Louis, Mo.).

Lebanon vicinity, Emerald Mound and Village Site, 3.5 miles northeast of Lebanon.

Sangamon County

Springfield, Edwards Place, 700 North Fourth Street.
 Springfield, Lincoln Home National Historic Site, Eighth and Jackson Streets.
 Springfield, *Lincoln Tomb, Oak Ridge Cemetery.
 Springfield, *Old State Capitol, bounded by Fifth, Sixth, Adams, and Washington Streets.

Will County

Joliet vicinity, *Illinois and Michigan Canal, 7 miles southwest of Joliet on U.S. 6, Channahon State Park.

INDIANA

Dearborn County

Aurora, Hillforest (Forest Hill), 213 Fifth Street.

Howard County

Kokomo, Seiberling Mansion, 1200 West Spencere Street.

Knox County

Vincennes, George Rogers Clark National Historical Park.
 Vincennes, *Harrison, William Henry, Home, (Grouseland), 3 West Scott Street.

Marion County

Indianapolis, Allison Mansion, 3200 Cold Spring Road.
 Indianapolis, *Harrison (Benjamin) Home, 1204 North Delaware Street.
 Indianapolis, Military Park, bounded on the west by Blackford Street, on the north by New York Street, on the east by West Street, and on the south by the canal.
 Indianapolis, *Riley (James Whitcomb) House, 528 Lockersburg Street.

Porter County

Porter vicinity, *Bailey (Joseph) Homestead, 0.5 mile west of Porter on U.S. 20.

Posey County

New Harmony, *New Harmony Historic District, Main Street between Granary and Church Streets.

St. Joseph County

South Bend, Old Courthouse (Second St. Joseph County Courthouse), 112 South Lafayette Road.

Spencer County

Lincoln City, Lincoln Boyhood National Memorial.

Tippecanoe County

Lafayette, Fowler, Mozes, House, corner of 10th and South Streets.
 Lafayette vicinity, Fort Ouiatenon, SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 23 N., R. 5 W.
 Lafayette vicinity, *Tippecanoe Battlefield, 7 miles northeast of Lafayette on Indiana 225.

Vanderburgh County

Evansville, Evansville Post Office, 100 block northwest Second Street.
 Evansville, Former Vanderburgh County Sheriff's Residence, Fourth Street between Vine and Court Streets.
 Evansville, Old Vanderburgh County Courthouse, entire block bounded by Vine, Fourth, Court and Fifth Streets.
 Evansville vicinity, *Angel Mounds, east of Evansville, Angel Mounds State Memorial.

Vigo County

Terre Haute, *Debs (Eugene V.) Home, 451 North Eighth Street.

Washington County

Salem, Hay-Morrison House, 106 South College Avenue.

Wayne County

Centerville, Centerville Historic District, bounded on the north by the corporation line, on the east by Third Street, on the south by South Street, and on the west by Willow Grove Road.
 Fountain City, *Coffin (Levi) House, 115 North Main Street.

IOWA

Allamakee County

Marquette vicinity, *Effigy Mounds National Monument, 3 miles north of Marquette on Iowa 13 (also in Clayton County).

Cedar County

West Branch, Herbert Hoover National Historic Site.

Cherokee County

Cherokee vicinity, *Phipps Site, 3 miles north of Cherokee.

Clayton County

Effigy Mounds National Monument (see Allamakee County).

Dubuque County

Dubuque, Dubuque County Courthouse, 720 Central Avenue.

Iowa County

Middle Amana, *Amana Villages, northeastern Iowa County.

Linn County

Toolesboro vicinity, *Toolesboro Mound Group, north of Toolesboro.

Lyon County

Sioux Falls vicinity, *Blood Run Site, south of Sioux Falls at the junction of Blood Run Creek and the Big Sioux River (also in Lincoln County, S. Dak.).

Mills County

Glenwood vicinity, Pony Creek Park, northeast of Glenwood on Pony Creek.

O'Brien County

Sutherland vicinity, *Indian Village Site (Wittrock Area), 3 miles east of Sutherland.

Pottawattamie County

Council Bluffs, *Dodge (Grenville M.) House, 805 South Third Street.

Story County

Ames, *Knapp-Wilson House, The Farm House, Iowa State University campus.

Woodbury County

Sioux City, *Sergeant Floyd Monument, Glenn Avenue and Lewis Road.

KANSAS

Allen County

Iola, Allen County Jail, 204 North Jefferson Street.
 Iola vicinity, Funston Home, 4 miles north of Iola on U.S. 69.

Atchison County

Atchison, Eubank, Amelia, Birthplace, 223 North Terrace.

Barber County

Medicine Lodge, Nation, Carry, Home, 211 West Fowler Avenue.
 Medicine Lodge vicinity, *Medicine Lodge Peace Treaty Site, just south and east of Medicine Lodge.

Barton County

Pawnee Rock vicinity, Pawnee Rock, 0.2 mile north of Pawnee Rock off U.S. 66.

Bourbon County

Fort Scott, *Fort Scott.

Chase County

Cottonwood Falls, Chase County Courthouse, on the square at the south end of Broadway.
 Strong City vicinity, Springfield Farm and Stock Ranch House, 3 miles north of Strong City on Kansas 177.

Dickinson County

Abilene, Eisenhower Home, 301 Southeast Fourth Street.

Doniphan County

Highland, Irwin Hall, Highland Community Junior College, Highland Community Junior College campus.

Highland vicinity, Iowa, Sac, and Fox Presbyterian Mission (Highland Presbyterian Mission), 1.5 miles east of Highland on U.S. 36 and 0.2 mile north on K-136.
 White Cloud, Fowler House, Poplar Street between First and Second Streets.

Douglas County

Baldwin, Old Castle Hall, 513 Fifth Street.
 Lawrence, *Haskell Institute.
 Lawrence, Ladington House, 1813 Tennessee Street.
 Lawrence, Old Lawrence City Hall (Watkins National Bank), 1047 Massachusetts Street.
 Leecompton, Constitution Hall, Elmore Street between Woodson and Third Streets.
 Leecompton, Lease University.

Ellis County

Hays, Fort Hays, Frontier Historical Park.
 Victoria, St. Fidelis Catholic Church, southeast corner of St. Anthony and Delaware Streets.

Ford County

Dodge City vicinity, *Santa Fe Trail Remains, 9 miles west of Dodge City on U.S. 50.

Geary County

Junction City vicinity, First Territorial Capitol, on K-18 in Fort Riley Military Reservation.

Grant County

Ulysses vicinity, *Wagon Bed Springs, 12 miles south of Ulysses on U.S. 170.

Harvey County

Newton, Warrentin House, 211 East First Street.
 Newton, Warrentin Mill, Third and Main Streets.

Johnson County

Fairway, *Shawnee Mission, 53rd Street at Mission Road.

Johnson County (also in Jackson County, Mo.).

Leawood, Majors, Alexander, House, 8143 State Line Road.

Leavenworth County

Lansing vicinity, Lansing Man Archaeological Site, 1 mile east of Lansing to Kansas 5, 0.66 mile south, and 0.26 mile east.
 Leavenworth, *Fort Leavenworth.

Lincoln County

Trading Post vicinity, Muralis des Cygnes Massacre Site, 3 miles northeast of Trading Post.

Lyon County

Emporia, White, William Allen, House, 827 Exchange Street.

Miami County

Oswawacoma, Brown, John, Cabin (Samuel Adair Cabin), John Brown Memorial Park.

Montgomery County

Independence vicinity, *Infinity Archeological Site*, 8 miles west of Independence on U.S. 160, 1.5 miles north and 1.5 miles east on a secondary road.

Morris County

Council Grove, *Council Grove Historic District*.

Council Grove, *Farmers and Drivers Bank*, 301 West Main Street.

Council Grove, *Last Chance Store*, 500 West Main Street.

Council Grove, *Old Kaw Mission*, 500 North Mission Street.

Council Grove vicinity, *William Young Archeological Site*, 4.5 miles north of Council Grove.

Pawnee County

Larned vicinity, *Fort Larned National Historic Site*, 5 miles west of Larned.

Republic County

Republic vicinity, *Pawnee Indian Village Site*, on Kansas 256, 8 miles north of U.S. 36, on the Republican River.

Rice County

Genesee vicinity, **Tobias-Thompson Complex*, 4 miles southeast of Genesee.

Riley County

Manhattan, *Goodnow House*, 2301 Claflin Road.

Saline County

Brookville, *Brookville Hotel*, Perry Street.

Salina vicinity, **Whiteford (Price) Site*, 3 miles east of Salina.

Scott County

Scott City vicinity, **El Cuartelejo*, 12 miles north of Scott City, Scott County State Park.

Sedgewick County

Wichita, *Old Sedgewick County Courthouse*, 504 North Main Street.

Wichita, *University Hall, Friends University*, 2000 University Avenue.

Wichita, *Wichita City Hall*, 204 South Main Street.

Shawnee County

Topeka, *Kansas State Capitol*, bounded by Eighth and 10th Avenues and Jackson and Harrison Streets.

Topeka, *Pottawatomie Baptist Mission Building*, off West Sixth Street, 0.5 mile west of Wanamaker Road.

Topeka, *St. Joseph's Catholic Church*, 235 Van Buren Street.

Sumner County

Argonia, *Salter Home*, 220 West Garfield Street.

Caldwell vicinity, *Bureau Archeological Site*, northwest of Caldwell on P.A.S. 239.

Wabasha County

Wabasha, *Beecher Bible and Rifle Church*, southeast corner of Chapel and Elm Streets.

Washington County

Hanover vicinity, **Hollenberg (Cottonwood) Pony Express Station*, 1.5 miles east of Hanover on a secondary road.

Wyandotte County

Kansas City, *Huron Cemetery*, Minnesota Avenue between Sixth and Seventh Streets.

Kansas City, *St. Augustine Hall* (Mather Hall), 3301 Parallel Avenue.

Kansas City, *Troubridge Archeological Site*, between 61st and 63rd Streets north of May Lane and Leavenworth Street.

Muncie, *Grinder Place*, 1420 South 78th Street.

KENTUCKY

Bell County

Middlesboro vicinity, *Cumberland Gap National Historical Park* (also in Claiborne County, Tenn., and Lee County, Va.).

Boone County

Union vicinity, *Big Bone Lick*, 8 miles west of Union on Kentucky 303.

Boyle County

Danville, **Jacobs Hall, Kentucky School for the Deaf*, South Third Street.

Danville, **McDonnell (Dr. Ephraim) House*, 125-27 South Second Street.

Perryville vicinity, **Perryville Battlefield*, west of Perryville on U.S. 150.

Fayette County

Lexington, **Ashland (Henry Clay Home)*, 2 miles southeast of Lexington on Richmond Road.

Lexington, *Clay, Henry, Law Office*, 176 North Mill Street.

Lexington, *Lincoln, Mary Todd, House*, 574 West Main Street.

Lexington, **Old Morrison, Transylvania College*, West Third Street between Upper Street and Broadway.

Lexington, *West High Street Historic District*, now consists only of the Rev. Adam Rankin House (215 West High Street), William Bowman House (125 West High Street), Dr. John C. and Samuel B. Richardson House (129 West High Street), and the John Leiby House (133 West High Street).

Lexington vicinity, *Weseland*, 5 miles south of Lexington off U.S. 27.

Franklin County

Frankfort, *Cornier in Celebrities Historic District*, bounded roughly by the Kentucky River on the west; by Main Street on the north with extensions northward along Wilkinson and Washington Streets; by Jackson and St. Clair Streets on the east; and by Wapping Street on the south with extensions southward to the river.

Frankfort, *Old Governor's Mansion*, 420 High Street.

Frankfort, *Old Statehouse*, Broadway between Lewis and Madison Streets.

Jefferson County

Louisville, *Old Central High School Building* (Medical Institute Building, University of Louisville), southwest corner of Eighth and Chestnut Streets.

Louisville, *Southern National Bank* (Old Bank of Louisville), 320 West Main Street.

Louisville, **Taylor (Zachary) House*, Springfield, 5606 Apache Road.

Louisville vicinity, *Locust Grove*, northeast of Louisville, 561 Blankenbaker Lane.

Kenton County

Covington, **Beard (Daniel Carter) Boyhood Home*, 322 East Third Street.

Covington, *Riverside Drive Historic District*, bounded on the north by Riverside Drive, on the south by Fourth Street, on the east by the Licking River, and on the west by the alley between Greenup and Garrard Streets.

Larue County

Hodgenville vicinity, *Abraham Lincoln Birthplace National Historic Site*, 3 miles south of Hodgenville.

Logan County

Adairville vicinity, *Savage Cave Archeological Site*, about 1 mile east of Adairville on Kentucky 591.

Lyon County

Kuttawa vicinity, *Kelly's Sweeney Furnace Office*, 1.4 miles west of Kuttawa.

Madison County

Richmond vicinity, *White Hall, Clay Laid*, off U.S. 25, 7 miles north of Richmond.

Mason County

Washington, *Washington Historic District*, corporate limits of the city of Washington in 1909.

Nelson County

Bardstown vicinity, *Federal Hill* (My Old Kentucky Home), 1 mile east of Bardstown on U.S. 150.

Ohio County

Paradise vicinity, **Indian Knoll*, 0.5 mile upstream from Paradise ferry landing on the Green River.

LOUISIANA

Acadian Parish

Marksville vicinity, **Marksville Prehistoric Indian Site*, Marksville Prehistoric Indian Park State Monument.

Orleans Parish

New Orleans, *Big Oak-Little Oak Islands*, northeast part of New Orleans; Big Oak is on the east side of Boger's Lagoon, 1.7 miles east of Little Woods; Little Oak is 2.6 miles east of Little Woods.

New Orleans, **The Cabildo*, Jackson Square, Chartres Street, and St. Peter Street.

New Orleans, **Coble (George Washington) House*, 1313 Eighth Street.

New Orleans, *The Garden District*, bounded by properties fronting on Carondelet Street on the north, Josephine Street on the east, Magazine Street on the south, and Louisiana Avenue on the west.

New Orleans, **Girard (Nicholas) House*, 509 Chartres Street.

New Orleans, *Hermann-Grima House*, 818-820 St. Louis Street.

New Orleans, **Jackson Square* (Place d'Armes), bounded by Decatur, St. Peter, St. Ann, and Chartres Streets.

New Orleans, **Lafitte's Blacksmith Shop*, 941 Bourbon Street.

New Orleans, **Madame John's Legacy*, 632 Dumaine Street.

New Orleans, **Old Ursuline Convent*, 1114 Chartres Street.

New Orleans, *Pilot House* (Ducay House), 1440 Moss Street.

New Orleans, **The Presbytere*, 713 Chartres Street.

New Orleans, *St. Mary's Assumption Church*, 2090 Constance Street.

New Orleans, **Vieux Carré Historic District*, bounded by the Mississippi River, Rampart Street, Canal Street, and Esplanade Avenue.

Plaquemines Parish

Phoenix vicinity, **Fort de la Boulaye Site*, near Phoenix on the Mississippi River, near Louisiana 50.

Triumph vicinity, **Fort Jackson*, 2.5 miles southeast of Triumph on Louisiana 23, on the west bank of the Mississippi River.

Triumph vicinity, **Fort St. Philip*, 2.5 miles southeast of Triumph on Louisiana 23, on the east bank of the Mississippi River.

Pointe Coupee Parish

Mix vicinity, **Parlange Plantation House*, at junction of Louisiana 1 and 78.

Rapides Parish

Alexandria vicinity, *Kent Plantation House*, west of Alexandria on Bayou Rapides.

Sabine Parish

Many vicinity, *Fort Jesup, 7 miles northeast of Many on Louisiana 6, Fort Jesup State Monument.

St. Bernard Parish

New Orleans vicinity, Chalmette National Historical Park, 6 miles south of New Orleans.

St. Charles Parish

Hahnville vicinity, *Homeplace Plantation House, 0.5 mile south of Hahnville Post Office on Louisiana 18.

West Carroll Parish

Delhi vicinity, *Poverty Point, 12 miles north of Delhi on Bayou Macon.

MAINE

Androscoggin County

Lewiston, Hathorn Hall, Bates College, Bates College campus.

Livermore, The Norlands, The Norlands Road.

New Gloucester, Shaker Village, on Route 26.

Aroostook County

Fort Kent vicinity, Fort Kent Memorial, c. 0.75 mile southwest of Fort Kent of Maine 11.

Littleton vicinity, Watson Settlement Bridge, across the Meduxnekeag Stream, 1 mile west of United States-Canadian border.

Cumberland County

Brunswick, First Parish Church, 207 Maine Street.

Brunswick, Massachusetts Hall, Bowdoin College, Bowdoin College campus.

Brunswick, *Stone (Harriet Beecher) House, 63 Federal Street.

Cape Elizabeth, Spurwink Congregational Church (South Meetinghouse), Spurwink Avenue.

Freeport, Fettingill House (Captain Greenfield Fote House), Wolf Neck Road.

Harpwell Center, *Harpwell Meetinghouse.

Harpwell vicinity, Peary (Robert E.) Home, Eagle Island.

Naples vicinity, Songo Lock (Cumberland-Oxford Canal), 1 mile off Maine 114 south of Naples.

Portland, The Gothic House (John J. Brown House), 66 Spring Street.

Portland, *McClellan-Sweet Mansion, 111 High Street.

Portland, *Morse-Libby Mansion, 109 Danforth Street.

Portland, Spring Street Historic District, bounded on the northeast by a straight line along Forest Avenue (midway between Cumberland Avenue and Congress Street) across a flatiron block to Free Street, across Free Street and another block to Spring Street, then along Oak Street to High Street, across High Street and another block to Danforth Street; by Danforth Street on the southeast; by a straight line along Pine Street to Longfellow Square, across the square to Vernon, Avon, and Henry Streets to Deering Place, and from Deering Place to Forest Avenue on the northwest.

Portland, Tate House, 1270 Westbrook Street.

Portland, *Wadsworth-Longfellow House, 487 Congress Street.

Scarborough, *Homer (Winslow) Studio, Winslow Homer Road, Prout's Neck.

Shaker Village (see Androscoggin County).

South Casco, Hawthorne (Nathaniel) Boyhood Home, Hawthorne and Raymond Cape Roads.

South Windham vicinity, Babby's Bridge, across the Presumpscot River, 2 miles north of South Windham.

Franklin County (also in Kennebec, Sagadahoc, and Somerset counties)

Popham Beach vicinity to Coburn Gore, Arnold Trail to Quebec, along Kennebec River, through Wyman Lake and Flagstaff Lake, along Dead River and Chain of Ponds to Quebec, Canada.

Farmington vicinity, Nordica Homestead, Holly Road, 0.5 mile from Route 27.

Hancock County

Blue Hill, Jonathan Fisher Memorial, outer Main Street (Route 16).

Castine, Gate House, corner of Court and Pleasant Streets.

Castine, Fort George Memorial.

Castine, Perkins, John, House, Perkins Street.

East Sullivan vicinity, *Wickup (Admiral Richard E. Byrd Estate), 8 miles northeast of East Sullivan.

Ellsworth, Black Mansion, West Maine Street on Route 172.

Northeast Harbor, *Gilman, Daniel Coit, Summer Home (Over Edge).

Kennebec County

Arnold Trail to Quebec (see Franklin County).

Augusta, *Blaine (James G.) House, Capitol and State Streets.

Augusta, Fort Western, Bowman Street.

Augusta, Kennebec Arsenal, Arsenal Street.

Hallowell, Elm Hill Farm (Merrick Cottage), Litchfield Road.

Hallowell, Hallowell Historic District, bounded on the west by a line running north 3,468 feet from the intersection of Litchfield Road and Middle Street to a point 93 feet north of Winthrop Street; then by a line running directly east for 1,563 feet; thence southwest from a point 120 feet west of U.S. 201 for a distance of 750 feet to a point on Water Street; thence south along Water Street to a point 62 feet north of the intersection with Winthrop Street; thence southeast toward the Kennebec River for 186 feet; thence southwest 580 feet; thence northwest along an extension of Union Street to Water Street; thence southwest on Temple to a point 185 feet east of Second Street; then parallel to Second in a southwesterly direction for 1,600 feet to a point 90 feet east of the corner of Second and Litchfield Road; thence west 562 feet to the starting point.

Hallowell, Row House (The Gage Block), 106-114 Second Street.

Hallowell, Vesper Homestead, Middle Street off Litchfield Road.

Winslow, *Fort Halifax.

Knox County

Camden, The Conway House, Conway Road.

Rockport, Rockport Historic Kiln Area, on Rockport harbor at the mouth of the Goose River.

Thomaston vicinity, Knox (Henry) Home, Montpelier, northeast of Thomaston on Maine 131.

Vicinity of Warren, Union, Appleton, and Seaboard, Georges River Canal, Upper Falls, Georges River in Warren to Union town line, extending to Quabacook Pond in Seaboard (also in Waldo County).

Vinalhaven, The Vinalhaven Galswelder, Bandstand Park.

Lincoln County

Alna Center, Alna Meetinghouse, Maine 218.

Damariscotta, Chapman-Hall House, Main and Vine Streets.

Damariscotta vicinity, Damariscotta Oyster Shell Heaps, Damariscotta River north of Damariscotta.

Dresden, Bowman-Carney House, 0.5 mile north of Maine 197 and west of Maine 128.

Dresden, Pownallborough Courthouse, Cedar Grove Road.

Edgecomb, Fort Edgecomb Memorial, on Davis Island in the Sheepscot River.

Pemaquid vicinity, Harrington Meetinghouse, northwest of Pemaquid on Old Harrington Road.

Pemaquid Beach vicinity, Fort William Henry, northwest of Pemaquid Beach.

Pemaquid Beach vicinity, Pemaquid Restoration and Museum, Pemaquid Point.

Waldoboro vicinity, German Church and Cemetery, Maine 32, 1 mile south of Waldoboro.

Wiscasset, *Nickels-Sortwell House, northeast corner of Main and Federal Streets.

Wiscasset, U.S. Customhouse (Old Customhouse) and Post Office, Water Street.

Wiscasset, Wiscasset Jail and Museum, Maine 218.

Oxford County

Fryeburg Center vicinity, Hemlock Bridge, across the Old Course Saco River, northeast of Fryeburg Center.

Newry vicinity, Sunday River Bridge, across the Sunday River west of Newry.

Porter vicinity, Porter-Parsonfield Bridge, 0.5 mile south of Porter (also in York County).

South Andover, Lovejoy Bridge, across the Ellis River.

Wilsons Mills vicinity, Bennett Bridge, across the Magalloway River 1.5 miles south of Wilsons Mills.

Penobscot County

Bangor, Morse Bridge, Valley Avenue, across Kenduskeag Stream.

Robbville, Robbville Bridge, across the Kenduskeag Stream.

Piscataquis County

Brownville Junction vicinity, Katahdin Iron Works, 5 miles north of Brownville Iron on Route 11, follow gravel road for 8 miles.

Guilford vicinity, Low's Bridge, across the Piscataquis River between Guilford and Sangerville.

Sagadahoc County

Arnold Trail to Quebec (see Franklin County).

Bath, Percy and Small Shipyard, 451 Washington Street.

Bath, Seguin (tugboat), Bath Marine Museum.

Bath, U.S. Customhouse and Post Office, 25 Front Street.

Bath, Winter Street Church, corner of Washington and Winter Streets.

Popham Beach vicinity, Fort Popham Memorial, north of Popham Beach on Hunsenlow Point.

Popham Beach vicinity, Popham Colony Site, northeast of Sabino Head at the end of Maine 209.

Somerset County

Arnold Trail to Quebec (see Franklin County).

New Portland vicinity, New Portland Wire Bridge, Wire Bridge Road, over the Carra-basset River.

Waldo County

Georges River Canal (see Knox County).

Prospect vicinity, *Fort Knox State Park.

Searsport, Penobscot Marine Museum, Church Street.

Stockton Springs vicinity, Fort Pownall Memorial, southeast of Stockton Springs on Fort Point.

Washington County

Columbia Falls, Ruggles House, Main Street.

Eastport, Fort Sullivan, Moose Island; Barracks, 74 Washington Street.

Machiasport vicinity, Fort O'Brien (Fort Machias), south of Machiasport on secondary road.

St. Croix Junction vicinity, *St. Croix Island National Monument*, on the international boundary, in the St. Croix River.

York County

Eliot vicinity, *Frost Garrison and House*, Frost's Hill.
 Kittery Point, *Lady Pepperrell House*, Maine 103.
 Kittery Point vicinity, *Fort McClary*, off Maine 103 near Fort McClary State Park.
 Porter vicinity, *Harrier-Parsonfield Bridge* (see Oxford County).
 South Berwick, *Hamilton, Jonathan, House*, Vaughan's Lane and Old South Road.
 York, Hancock (John) Warehouse, Lindsay Road.
 York, *Old York Gage, 4 Lindsay Road*.
 York vicinity, *Melville Garrison House*, 5 miles west of York on Maine 91.

MARYLAND

Allegany County

Chesapeake and Ohio Canal National Historical Park (also in Frederick, Montgomery, and Washington counties, Md.; in D.C.; and Morgan County, W. Va.).
 La Vale, *La Vale Tollgate House*, U.S. 40.

Anne Arundel County

Annapolis, *Brice House*, 42 East Street.
 Annapolis, *Chase-Lloyd House*, 22 Maryland Avenue.
 Annapolis, *Colonial Annapolis Historic District*, district boundaries approximate those of the city plan of 1655.
 Annapolis, *Hammond-Harwood House*, Maryland Avenue and King George Street.
 Annapolis, *Maryland Statehouse*, State Circle.
 Annapolis, *Pinkney-Callahan House*, 5 St. John's Street.
 Annapolis, *U.S. Naval Academy*, Maryland Avenue and Hanover Street.
 Annapolis, *Whitehall*, off St. Margaret's Road.

Crownsville vicinity, *Belvoir*, approximately 0.5 mile east of Crownsville on Maryland 178.

Davidsonville vicinity, *All Hallows' Church*, intersection of Maryland 2, All Hallows' Church Road, and South River Club Road.
 Friendship vicinity, *Holly Hill*, Maryland 261, 1.5 miles east of Solomon's Island Road.

Galesville vicinity, *Cedar Park*, 4.4 miles south of intersection of Maryland 214 and 468 and 1.5 miles north of intersection of Maryland 255 and 468.

Galesville vicinity, *Tulip Hill*, c. 2.5 miles west of Galesville on Owensville Road.

Harwood vicinity, *Larkin's Hill Farm*, off Maryland 2 on Mill Swamp Road.

Harwood vicinity, *Larkin's Hundred*, on Mill Swamp Road, 1 mile east of Maryland 2 and 0.9 mile west of Maryland 468.

Harwood vicinity, *Mary's Mount*, 0.5 mile east of Maryland 2 and south of Mill Swamp Road.

Harwood vicinity, *Obligation*, west side of Maryland 2, 0.5 mile south of intersection of Maryland 2 and Mill Swamp Road.

Owensville vicinity, *Evergreen*, Sudley Road, 2 miles southeast of Maryland 255.

South River vicinity, *The South River Club*, South River Club Road, 1 mile east of Maryland 2 and 0.4 mile west of Maryland 468.

Woodland Beach vicinity, *London Town Public House*, south bank of the South River, c. 0.5 mile northeast of Woodland Beach.

Baltimore and Ohio Transportation Museum and Mount Clare Station, Pratt and Poppleton Streets.

Baltimore (independent city)

Belton Hill Historic District, bounded on the north by North Avenue, on the northeast by Mount Royal Avenue, on the east by Cathedral Street, on the south by Dolphin Street, and on the southwest by Madison Avenue.

Clifton Park Vaive House, 2601 Hartford Road.

U.S.F. Constellation, Pier 1, Pratt Street.

Eastern Female High School, 249 Aisquith Street.

Federal Hill Historic District, bounded on the east by Covington Street, on the north by Hughes Street, on the west by Charles Street, and on the south by Hamburg Street.

Fells Point Historic District, bounded on the north by Alceanna Street, on the east by Wolfe Street, on the south by the harbor, and on the west by Dallas Street.

The Flag House, 844 East Pratt Street.

Fort McHenry National Monument and Historic Shrine, Locust Point, at the eastern end of Fort Avenue.

Franklin Street Presbyterian Church and Parsonage, 504 Cathedral Street, Parsonage, 100 West Franklin Street.

Mount Clare, Carroll Park.

Mount Vernon Place United Methodist Church and Asbury House, 2-10 East Mount Vernon Place.

Old Roman Catholic Cathedral, 401 Cathedral Street.

Otterbein Church, 112 West Conway Street.

Pearl's Baltimore Museum (Municipal Museum of the City of Baltimore), 225 North Holliday Street.

Shot Tower, southeast corner, Fayette and Front Streets.

Baltimore County

Relay, *Thomas Viaduct*, Baltimore & Ohio Railroad, across the Palapsoo River between Relay and Elkridge (also in Howard County).

Stevenson vicinity, *Fort Garrison*, Garrison Farms Court, south of Stevenson.
 Towson, *Hampton National Historic Site*, Hampton Lane, 1 mile north of Interstate 695.

Carroll County

Union Mills, *Union Mills Homestead Historic District*, intersection of U.S. 140 and Deep Run Road.

Cecil County

Chesapeake City, *Old Lock Pump House*, Chesapeake and Delaware Canal, U.S. 213.

Frederick County

Chesapeake and Ohio Canal National Historical Park (see Allegany County).

Frederick, *Hessian Barracks*, 342 South Market Street.

Frederick, *Rose Hill Manor*, 1611 North Market Street.

Garrett County

Grantville vicinity, *Casselman's Bridge*, National Road, east of Grantville on U.S. 40.
 Grantville vicinity, *Fuller-Baker Log House*, 0.5 mile west of Grantville on U.S. 40.

Howard County

Elkridge vicinity, *Thomas Viaduct*, Baltimore & Ohio Railroad (see Baltimore County).

Ellicott City, *Ellicott City Station*.

Kent County

Chesterdown, *Chesterdown Historic District*, bounded roughly by the Chester River on the southeast, Cannon Street on the southwest, Cross Street on the northwest, and Maple Avenue on the northeast.

Chesterdown, *Denton House*, 107 Water Street.

Montgomery County

Chesapeake and Ohio Canal National Historical Park (see Allegany County).
 Glen Echo, *Barton (Clara) House*, 6801 Oxford Road.

Prince Georges County

Accokeek vicinity, *Accokeek Creek Site*, opposite Mount Vernon on the Potomac River, west of Piscataway Park.

Accokeek vicinity, *Piscataway Park*, across the Potomac River from Mount Vernon.

Croom vicinity, *Bellefields*, north side of Dudley Station Road, 0.5 mile south of Croom.

Laurel vicinity, *Montpelier*, Maryland 197.

Roadville vicinity, *His Lordship's Kindness*, 3.5 miles west of Roadville.

Washington, D.C., vicinity, *Fort Washington*, 5.5 miles south of District of Columbia line on Maryland 210, west on Old Fort Road.

St. Mary's County

Drayden vicinity, *West St. Mary's Manor*, c. 1 mile east of Drayden on the St. Mary's River.

Hollywood vicinity, *Resurrection Manor*, c. 4 miles east of Hollywood.

St. Mary's City, *St. Mary's City Historic District*, bounded on the west by the St. Mary's River, on the south by St. Inge's Creek and a branch of Broome (Hill) Creek, and on the north by Chancellor's (Fisherman or St. John's) Creek; the eastern boundary extends south and east about 2 miles across the peninsula from Chancellor's Creek to Broome Creek.

Somerset County

Princess Anne, *Teakie Mansion (Beckford Mansion)*, Mansion Street.

Talbot County

Easton vicinity, *Wye House*, 6.9 miles northwest of Easton on Miles Neck River.

Washington County

Chesapeake and Ohio Canal National Historical Park (see Allegany County).

Harpers Ferry National Historical Park (see Jefferson County, W. Va.).

Sharpsburg, *Antietam National Battlefield Site*.

Wicomico County

Salisbury, *Pemberton Hall*, Pemberton Road.

Salisbury, *Poplar Hill Mansion*, 117 Elizabeth Street.

Worcester County

Berlin vicinity, *Genesee*, southeast of Berlin on Maryland 611, 9 miles south of U.S. 50.

MASSACHUSETTS

Barnstable County

Barnstable, *Old Jail*, Main Street and Old Jail Lane.

Berkshire County

Pittsfield, *Melville, Herman, House (Arrowhead)*, Holmes Road.

Pittsfield, *Hancock Shaker Village*, west of Pittsfield on U.S. 20.

Stockbridge, *Mission House*, Main Street.

Stockbridge vicinity, *Chesterwood (Daniel Chester French Home and Studio)*, 2 miles west of Stockbridge.

Bristol County

Dighton vicinity, *Dighton Rock*, across the Taunton River from Dighton in Dighton Rock State Park.

New Bedford, *New Bedford Historic District*, bounded by the waterfront on the east, Elm Street on the north, Acushnet Avenue on the west, and Commercial Street on the south.

New Bedford, Old Third District Courthouse, Second and Williams Streets.
New Bedford, Botsch Counting House, 123 Front Street.
New Bedford, *U.S. Customhouse, southwest corner, Second and Williams Streets.

Essex County

Amesbury, *Whipple (John Greenleaf) Home, 86 Friend Street.
Beverly, Fish Falls Mill (Front Street) Historic District, north and south sides of Front Street from Cabot to Bartlett Streets (excluding the lot on the northwest corner of Front and Cabot Streets).
Danvers, *Derby Summer House, Glen Magna Estate, Ingersoll Street.
Gloucester, Lene, Fitz Hugh, House, harbor side of Rogers Street.
Ipswich, *Whipple (John) House, 53 South Main Street.
Marblehead, *Lee (Jeremiah) House, Washington Street.
Newbury, *Spencer-Pierce-Little House, end of Little's Lane, east of U.S. 1A.
Newburyport, Market Square Historic District, Market Square and properties fronting on State, Merrimack, Liberty, and Water Streets.
Newburyport, U.S. Customhouse, 25 Water Street.
Salem, *Bouditch (Nathaniel) Home, 9 North Street.
Salem, *Gardner-Pingree House, 120 Essex Street.
Salem, *Hamilton Hall, 9 Cambridge Street.
Salem, *Peabody Museum of Salem, 161 Essex Street.
Salem, *Peirce-Nichols House, 80 Federal Street.
Salem, Salem Maritime National Historic Site, Derby Street.
Salem, *Ward (John) House, Essex Institute, 132 Essex Street.
Saugus, Saugus Ironworks National Historic Site, off U.S. 1.
Saugus, *Boardman House, Howard Street.
Thacher's Island, Twin Lights, 1 mile off the coast, east of Rockport.
Topsheld, *Parson Capen House, Howlett Street.

Franklin County

Deerfield, *Old Deerfield Village Historic District.

Hampden County

Springfield, *Springfield Armory, Armory Square.
Springfield (also in Suffolk, Norfolk, Middlesex, and Worcester Counties), Warren, West Brookfield, Brookfield, East Brookfield, Spencer, Leicester, Worcester, Shrewsbury, Northboro, Sudbury, Cambridge, Brookline, and Boston, 1767 Milestones, between Boston and Springfield along the Old Post Road.

Hampshire County

Amherst, *Dickinson (Emily) Home, 280 Main Street.
Cummington vicinity, *Bryant (William Cullen) Homestead, 2 miles from Cummington on side road.
Pelham, Pelham Town Hall Historic District, Amherst Road at the corner of Daniel Shays Highway.

Middlesex County

Action, Faulkner Homestead, High Street.
Arlington, Old Schwend Mill, 17 Mill Lane and 29 Lowell Street.
Cambridge, *Christ Church, Garden Street.
Cambridge, Fuller, Margaret, House, 71 Cherry Street.
Cambridge, *Gray (Ass) House, 58 Garden Street.
Cambridge, *Hastings, Oliver, House, 101 Brattle Street.

Cambridge, *Elmwood (James Russell Lowell Home), Elmwood Avenue.
Cambridge, Mason, Josiah, House, 79 Moore Street.
Cambridge, *Massachusetts Hall, Harvard University, Harvard University Yard.
Cambridge, *Memorial Hall, Harvard University, Harvard University campus.
Cambridge, *Senior Hall, Harvard University, Harvard University campus.
Cambridge, *University Hall, Harvard University, Harvard University campus.
Cambridge, *Vassall, John, House (Craigie-Longfellow House), 105 Brattle Street.
Concord, *Emerson (Ralph Waldo) Home, Lexington Road and Cambridge Turnpike.
Concord, Minute Man National Historical Park (also in the towns of Lincoln and Lexington).
Concord, *Old Manse, Monument Street.
Concord, *Orchard House, Lexington Road.
Concord, *Wright's Tavern, Lexington Road, opposite the Burying Ground.
Concord vicinity, *Walden Pond, 1.5 miles south of Concord.
Lexington, *Buckman Tavern, Hancock Street, on the east side of Lexington Green.
Lexington, *Hancock-Clarke House, 35 Hancock Street.
Lexington, *Lexington Green, Massachusetts and Hancock Streets.
Medford, *Royall (Isaac) House, 15 George Street.
Medford, *Tajits (Peter) House, 350 Riverside Avenue.
Waltham, *Gore Place, 52 Gore Street.
Waltham, *The Vale (Theodore Lyman Estate), Lyman and Beaver Streets.
1767 Milestones (see Hampden County).
Woburn, Baldwin, Loomis, Mansion, 12 Elm Street.

Nantucket County

Nantucket, *Coffin (Jethro) House, Sunset Hill.
Nantucket, *Nantucket Historic District.

Norfolk County

Brookline, John Fitzgerald Kennedy National Historic Site, 83 Beals Street.
Brookline, *Olmsted (Frederick Law) House, 99 Warren Street.
Brookline (also in Suffolk County), Olmsted Park System, encompassing the Back Bay Fens, Muddy River, Olmsted (Leverett) Park, Jamaica Park, Arborway, and Franklin Park.
Dedham, *Fairbanks House, Eastern Avenue and East Street.
Millis, *Forbes (Captain Robert H.) House, 215 Adams Street.
1767 Milestones (see Hampden County).
Quincy, *Adams (John) Birthplace, 133 Franklin Street.
Quincy, *Adams (John Quincy) Birthplace, 141 Franklin Street.
Quincy, Adams National Historic Site, 135 Adams Street.
Quincy, Mowettusset Hummock, on Squantum Street, about 1,000 feet northeast of the intersection with Morrissey Boulevard.
Quincy, Quincy Homestead, 34 Butler Road.
Quincy, *United First Parish Church (Unitarian) of Quincy, 1266 Hancock Street.

Plymouth County

Hingham, *Old Ship Meetinghouse, Main Street.
Plymouth, *Cole's Hill, Carver Street.
Plymouth, Plymouth Rock, Water Street.

Suffolk County

Boston, African Meetinghouse, 8 Smith Street.
Boston, *Arnold Arboretum, 22 Divinity Avenue.

Boston, *Beacon Hill Historic District, bounded roughly by Beacon Street on the south, the Charles River Embankment on the west, Pinckney and Revere Streets on the north, and Hancock Street on the east.
Boston, *Boston Athenaeum, 104 Beacon Street.

Boston, *Boston Light, Little Brewster Island, Boston harbor.

Boston, *Boston Naval Shipyard, east of Chelsea Street, Charlestown.

Boston, *Bunker Hill Monument, Breed's Hill.

Boston, *U.S.S. Constitution, Boston Naval Shipyard.

Boston, Dorchester Heights National Historic Site, South Boston.

Boston, *Ether Dome, Massachusetts General Hospital, Fruit Street.

Boston, *Faneuil Hall, Dock Square.

Boston, *First Harrison Gray Otis House, 141 Cambridge Street.

Boston, *Harding (Chester) House, 16 Beacon Street.

Boston, *Headquarters House, 55 Beacon Street.

Boston, *King's Chapel, Tremont and School Streets.

Boston, *Long Wharf and Customhouse Block, foot of State Street.

Boston, *Massachusetts General Hospital, Fruit Street.

Boston, *Massachusetts Historical Society, 1154 Boylston Street.

Boston, *Massachusetts Statehouse, Beacon Hill.

Boston, *Old South Church in Boston, 645 Boylston Street.

Boston, *Old City Hall, School and Providence Streets.

Boston, *Old North Church, Christ Church, 183 Salem Street.

Boston, *Old South Meetinghouse, Milk and Washington Streets.

Boston, *Old Statehouse, Washington and State Streets.

Boston, *Old West Church, 131 Cambridge Street.

Boston, Olmsted Park System (see Norfolk County).

Boston, *Parkman (Francis) House, 50 Chestnut Street.

Boston, *Pierce-Highborn House, 29 North Square.

Boston, *Quincy Market, South Market Street.

Boston, *Revere (Paul) House, 19 North Square.

Boston, *St. Paul's Church, 136 Tremont Street.

Boston, *Sears, David, House (Somerset Club), 42 Beacon Street.

1767 Milestones (see Hampden County).

Worcester, *American Antiquarian Society, 185 Salisbury Street.
Worcester, Elm Park, bounded by Elm, Russell, Highland, and Pleasant Streets and by private properties on the west and north of Federal and Marmon Places (excludes the property of Worcester High School on Highland Street).

Worcester, Massachusetts Avenue Historic District, between Salisbury Street and Drury Lane.

MICHIGAN

Alger County

Christmas vicinity, Bay Furnace, northwest of Christmas on Highway 28.
Grand Marais, Hill's Store, Grand Marais Avenue.

Barry County

Hastings, Striker, Daniel, House, 321 South Jefferson Street.

Bay County

Bay City, Fletcher Site, SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16 and NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 14 N., R. 5 E.

Berrien County

Berrien Springs, Berrien Springs Courthouse, north side, corner of Union and Ouse Streets.

Calhoun County

Albion, Gardner House, 500 South Superior Street.

Battle Creek, Penn Central Railway Station (New York Central and Michigan Central Railway Station), West Van Buren.

Marshall, Brooks, Harold C., House (Jabes S. Pitch House), 310 North Kalamazoo Avenue.

Marshall, Honolulu House (Abner Pratt House), 107 North Kalamazoo Street.

Marshall, Wagner's Block, 143 West Michigan.

Charlevoix County

Charlevoix vicinity, O'Neill Site, south of Charlevoix off U.S. 31.

St. James, Mormon Print Shop, Main and Forest Streets.

Cheboygan County

Mackinaw City, *Fort Michilimackinac, near Mackinac Bridge, at the terminus of U.S. 31.

Mackinaw City vicinity, Mackinac Point Lighthouse, Michilimackinac State Park.

Chippewa County

Drummond Township, Fort Drummond, western end of Drummond Island.

Sault Ste. Marie, Johnston, John, House, 418 Park Place.

Sault Ste. Marie, New Fort Brady, Lake Superior State College.

Sault Ste. Marie, Old Fort Brady, bounded by the C.O.E. Service Plaza on the north, by Portage Street on the south, Brady Street on the east, and Bingham Street on the west.

Sault Ste. Marie, *St. Mary's Falls Canal, St. Mary's River.

Strongsville vicinity, Naamkong Point Site, NE $\frac{1}{4}$ sec. 8, T. 47 N., R. 5 W.

Clinton County

Ovid, Main Street Building United Church of Oid, 222 Main Street.

Delta County

Fayette, Fayette State Park, on a peninsula in Big Bay de Noc, on Michigan 149.

Fayette vicinity, Spider Cave, on Big Bay de Noc between Fayette and Fairport.

Summer Island, Summer Island Site, Summer Harbor, SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 37 N., R. 19 W.

Eaton County

Charlotte, Eaton County Courthouse, West Lawrence Avenue at Cochran and Bostwick Streets.

Vermontville, First Congregational Church, 341 South Main Street.

Emmet County

Cross Village vicinity, Wycamp Creek Site, northeast of Cross Village on the north bank of Wycamp Creek.

Petokey, Chesapeake and Ohio Railway Station (Chicago and West Michigan Railway Station, Pere Marquette Railway Station), Pioneer Park, West Lake Street.

Walloon Lake, *Hemington, Ernest, Cottage (Windemere), Lake Grove Road.

Hillsdale County

Jonesville, Grace Episcopal Church, 360 East Chicago Street.

Houghton County

Calumet, Calumet Theatre, 340 Sixth Street.
Hancock, Old Main, Quincy Street.

Hancock vicinity, Quincy Mine No. 2 Shaft Hoist House, off U.S. 41.

Huron County

Grindstone City, Grindstone City Historic District, on U.S. 25.

Harbor Beach, Murphy, Frank, Birthplace, 142 South Huron Street.

Ingham County

East Lansing, Eustace Hall (Horticultural Laboratory Building), Michigan State University campus.

East Lansing vicinity, St. Katherine's Chapel, 4650 Meridian Road, east of East Lansing.

Lansing, Michigan State Capitol, Capitol Avenue at Michigan Avenue.

Mason, Ingham County Courthouse, Jefferson and Ash Streets.

Ionia County

Ionia, Hall-Fowler Memorial Library (Friederick Hall House), 126 East Main Street.

Jackson County

Concord, Mann House, 205 Hanover Street.

Gram Lake, Smith, Sidney T., House, Michigan Avenue.

Kalamazoo County

Kalamazoo, Ladies Library Association Building, 333 South Park Street.

Kent County

Ada vicinity, Ada Covered Bridge, across the Thornapple River.

Grand Rapids, Grand Rapids Art Museum (Abram W. Pike House), 230 Fulton Street East.

Grand Rapids, Heritage Hill Historic District, bounded by Michigan Avenue on the north, Pleasant Street on the south, Union Avenue on the east and by Clarendon Place, Jefferson, and Lafayette Avenues on the west.

Grand Rapids, Ladies' Literary Club, 61 Sheldon St.

Grand Rapids, St. Cecilia Society Building, 24-30 Ransom Avenue NE.

Grand Rapids, Turner House (R. C. Allen, Inc., Employees' Clubhouse), 731 Front Street NW.

Grand Rapids vicinity, *Norton Mound Group, 2 miles south of Grand Rapids on Indian Mound Drive.

Lowell, Lowell Library, 323-325 Main Street.

Keweenaw County

Copper Harbor, Fort Wilkins, Fort Wilkins State Park.

Lapeer County

Lapeer, Lapeer County Courthouse, Courthouse Square, Nepeusing Street.

Lenape County

Blissfield, First Presbyterian Church of Blissfield, 308 Franklin Street.

Cambridge Junction, Walker Tavern (Cambridge State Historical Park), on U.S. 12.

Livingston County

Howell, Ann Arbor Railway Station, 126 Wetmore Street.

Mackinac County

Gros Cap vicinity, Gros Cap Cemetery, southeast of Gros Cap on U.S. 2.

Mackinac Island, Geary, Mathew, House, Market Street.

Mackinac Island, Indian Dormitory, Huron Street.

Mackinac Island, *Mackinac Island, northeast across the Straits of Mackinac from Mackinaw City.

Mackinac Island, Mission Church, Huron Street.

Mackinac Island, Mission House, Huron Street.

Mackinac Island, Stuart, Robert, House (Agency House of the American Fur Co.), Market Street.

St. Ignace, Lasanen Site, 600 South State Street.

St. Ignace, *St. Ignace Mission, State and Marquette Streets, Marquette Park.

Macomb County

Romeo, Romeo Historic District, bounded on the north by Gates Street, running east and west 2,700 feet north of St. Clair Street; bounded on the south by Durham Drive and a line running east and west 3,180 feet south of St. Clair Street; the western boundary runs north and south 2,400 feet from Main Street; the eastern boundary is 2,400 feet from Main Street.

Sterling Township, Holcombe Site, SW $\frac{1}{4}$ sec. 23, T. 2 N., R. 12 E.

Washington, Washington Octagon House, 5763 Van Dyke.

Manistee County

Manistee, Ramsdell Theatre, 101 Maple Street.

Marquette County

Marquette, Call House, 450 East Ridge Street.

Negaunee vicinity, Jackson Mine, west of Negaunee, sec. 1, T. 47 N., R. 37 W.

Monroe County

Monroe, McClelland, Governor Robert, House, 47 East Elm.

Muskegon County

Muskegon, Hackley, Charles H., House, 454 West Webster Avenue.

Muskegon, Hume Home, 472 West Webster Avenue.

Oakland County

Birmingham, Hunter, John W., House, 556 West Maple.

Franklin, Village of Franklin Historic District, bounded approximately by the Franklin River and properties fronting on Bowden Street, by Romany Way and Sconle Highway, properties fronting on Franklin Road, and a line extending about 300 feet north of and parallel to Fourteen Mile Road.

Ortonville, Ortonville Mill, 396 Mill Street.

Pontiac, Myrick-Palmer House, 223 West Huron Street.

Pontiac, *Walker House (Pine Grove), 405 Oakland Avenue.

Troy, Cassell House, 60 West Wattles Road.

NOTICES

Ottawa County

Holland, Third Reformed Church, 110 West 12th Street.

Saginaw County

Saginaw, Castle Station/Federal Building, South Jefferson at Federal.

St. Clair County

Marine City, Ward-Holland House, 433 North Main Street.

Port Huron, St. Clair River Tunnel, St. Clair River between Port Huron, Mich., and Sarnia, Ontario.

St. Joseph County

Nottawa vicinity, Nottawa Stone School, east of Nottawa, Sturgis Road at Fumore Road.

Sanilac County

Minden City vicinity, Sanilac Petroglyphs, off Germania Road, 11 miles west of Minden City.

Shamash County

Durand, Grand Trunk Railway Station, 200 Railroad Street.

Owosso, Curved Castle, 224 John Street.

Washtenaw County

Ann Arbor, Ann Arbor Central Fire Station, corner of Fifth Avenue and Huron Street.

Ann Arbor, President's House, University of Michigan, 815 South University, University of Michigan campus.

Ann Arbor, White, Orrin, House (Robert Hodges Residence), 2040 Fuller Road.

Wayne County

Dearborn, Commandant's Quarters, 21050 Michigan Avenue.

Dearborn, Fair Lane (Henry Ford Estate), 4901 Evergreen Road.

Dearborn, Greenfield Village, Oakwood Boulevard.

Detroit, Bagley Memorial Fountain, Woodward and Monroe Avenues.

Detroit, Christ Church, Detroit, 900 East Jefferson Avenue.

Detroit, Fort Street Presbyterian Church, 631 West Fort Street.

Detroit, Fort Wayne, 6063 West Jefferson Avenue.

Detroit, Frer, Charles Lang, House (Merrill-Palmer Institute of Human Development and Family Life), 71 East Perry Street.

Detroit, Hecker, Colonel Frank J., House, 5510 Woodward Avenue.

Detroit, Martine's Church, 170 East Jefferson Avenue.

Detroit, Morse House, 1490 East Jefferson Avenue.

Detroit, Orchestra Hall, 3711 Woodward Avenue.

Detroit, Pensable Pottery, 10125 East Jefferson Avenue.

Detroit, SS. Peter and Paul Church (Roman Catholic), 620 East Jefferson Avenue.

Detroit, St. Mary's, 978 East Jefferson Avenue.

Detroit, West Canfield Historic District, Canfield Avenue between Second and Third Streets.

Grosse Ile, St. James Episcopal Chapel, 25150 East River Road.

Grosse Pointe Farms, Dodge Mansion (Rose Terrace), 13 Lakeshore Drive.

MINNESOTA

Blue Earth County

Mankato vicinity, Seppman Mill, west of Mankato off Minnesota 68.

Brown County

New Ulm, Federal Post Office Building, Center Street and Broadway.

Cass County (also in Crow Wing and Morrison counties)

Barrows vicinity, Crow Wing State Park, 2 miles southwest of Barrows on U.S. 371.

Chicago County

Taylor's Falls, Munch-Ross House, 360 Beach Street.

Taylor's Falls, Taylor's Falls Public Library, 417 Beach Street.

Clearwater County

Lake Itasca vicinity, Itasca Bison Site, NW¼NW¼ sec. 22, T. 143 N., R. 36 W.

Cook County

Grand Marais vicinity, Grand Portage National Monument, 38 miles north of Grand Marais.

Cottonwood County

Jeffers vicinity, Jeffers Petroglyph Site, NW¼NW¼ sec. 6, T. 107 N., R. 35 W.

Crow Wing County

Crow Wing State Park (see Cass County).

Dakota County

Hastings, Le Due House, 1639 Vermillion Street.

Mendota, Mendota Historic District, bounded on the west by Government Lot 2, sec. 28, T. 28 N., R. 23 W., on the southwest by Interstate 55 to Sibley Highway; northeast along Sibley Highway to the intersection of D Street; northwest on D Street to the Chicago & Northwestern Railroad; then directly north to the Dakota-Ramsey County line and thence southwest along the line to the boundary of Government Lot 2 extended north.

St. Paul vicinity, *Fort Snelling, bounded irregularly by Minnehaha Park and the Mississippi River (north); Government Lot 2 (east); the east-west quarterline of sec. 28, T. 28 N., R. 23 W., and the municipal airport (south); and a line parallel to and 60 feet northeast of Bloomington Road (west) (also in Hennepin County).

Goodhue County

Red Wing vicinity, Bartron site, NW¼NW¼ sec. 2, T. 113 N., R. 15 W.

Welch vicinity, Fort Sweeney Site, SE¼ sec. 28, T. 113 N., R. 15 W., across the Cannon River from Welch.

Hennepin County

Bloomington, Pond, Gideon H., House, 401 East 104th Street.

Edina, Oak School, corner of Eden Avenue and Minnesota 100.

Edina, Grange Hall, corner of Eden Avenue and Minnesota 100.

*Fort Snelling (see Dakota County).

Minneapolis, American Swedish Institute (Sven J. Turnblad Residence), 2600 Park Avenue.

Minneapolis, Atwater, Isaac, House, 1607 South Fifth Street.

Minneapolis, Butler Brothers Building, First Avenue North at Sixth Street.

Minneapolis, Minnehaha State Park, south of Minnehaha Parkway between Minnehaha Avenue and the Mississippi River.

Minneapolis, *Pillsbury A Mill, Main Street and Third Avenue SE.

Minneapolis, St. Anthony Falls Historic District, the district lies on both sides of the Mississippi River from the Plymouth Avenue Bridge on the northwest to 10th Avenue South (west bank) and Sixth Avenue Southeast (east bank) on the southeast; it extends onto the east river shore as far as University Avenue and onto the west river shore to Second Street South.

St. Louis Park, St. Louis Park Station, West 38th Street and Alabama Avenue.

Houston County

Brownsville, Emmanuel Evangelical Lutheran Church (Methodist Episcopal Church), Main Street.

Lake County

Two Harbors vicinity, Split Rock Lighthouse, about 20 miles northwest of Two Harbors on U.S. 61.

Le Sueur County

Le Sueur, Mayo (Dr. William W.) House, 118 North Main Street.

Mille Lacs County

Vineland vicinity, Cooper Site, on the south bank of Ojibwe Lake within Mille Lacs-Kathio State Park.

Vineland vicinity, *Kathio Site, U.S. 160, Mille Lacs-Kathio State Park.

Vineland vicinity, Pelapa Point, on the southeast shore of Ojibwe Lake in Mille Lacs-Kathio State Park.

Vineland vicinity, Sew Mill Site, on the northwest side of Lake Ojibwe in Mille Lacs-Kathio State Park.

Vineland vicinity, Vineland Bay Site (Kathio School Site), southwest shore of Mille Lacs Lake above the Rum River outlet and within Mille Lacs-Kathio State Park.

Morrison County

Camp Ripley, Old Fort Ripley, sec. 7, T. 131 N., R. 29 W.

Crow Wing State Park (see Cass County).

Little Falls vicinity, Charles A. Lindbergh State Park and Lindbergh House, southwest of Little Falls on the Mississippi River.

Nicollet County

Fairfax, Fort Ridgely, sec. 6, T. 113 N., R. 32 W.

St. Peter, Cox, E. St. Julien, House, 500 North Washington Avenue.

Olmsted County

Rochester, 1914 and 1938 Mayo Clinic Buildings, 110-118 Second Avenue.

Stewartville vicinity, Maywood, northwest of Stewartville on County Road D.

Pike County

Pipestone vicinity, Pipestone National Monument, 1 mile north of Pipestone.

Ramsey County

St. Paul, Burbank-Livingston-Griggs House, 452 Summit Avenue.

St. Paul, *Hill (James J.) House, 240 Summit Avenue.

St. Paul, Old Federal Courts Building, 109 West Fifth Street.

St. Paul, Ramsey (Alexander) House, 265 South Exchange Street.

Redwood County

Redwood Falls vicinity, Lower Sioux Agency, 9 miles east of Redwood Falls off County Route N 2.

Rice County

Fairbault, Fairbank, Alexander, House, 12 Northwest First Avenue.

Northfield, Nuffing House, 217 Union Street.

Northfield, Railway (O.E.) House, 311 Main Street.

St. Louis County

Duluth, Duluth Union Depot, Fifth Avenue West and Michigan Street.

Hibbing vicinity, *W.E. Kasi-Mahoning Open Pit Iron Mine, Third Avenue East.

Mountain Iron vicinity, *Mountain Iron Mine, north of Mountain Iron.

Tower vicinity, *Soudan Iron Mine, Tower-Soudan State Park.

Sherburne County

Elk River vicinity. *Kellie (O'Brien H.) Homestead, 2 miles southeast of Elk River on U.S. 10.

Stearns County

Sank Centre. *Lewis (Sindler) Boghood Home, 512 Sindler Lewis Avenue.

Steele County

Owstonia. Security Bank and Trust Co. (National Farmers Bank of Owstonia), North Cedar Street and East Broadway.

Washington County

Lakeland. Grout House, Minnesota Street between Green and Prairie Streets.
Marine on St. Croix. Marine Mill Site, Mill Reservation, block 47.
Scandia. Bay Lake School, sec. 27, T. 21 N., R. 19 W.

Stillwater. Washington County Courthouse, West Pine Street at South Third Street.
Stillwater vicinity. *St. Croix Boom Site, 3 miles north of Stillwater on St. Croix River.

Winona County

Winona. Winona County Courthouse, Washington Street between Third and Fourth Streets.
Winona vicinity. Pickwick Mill, Hamlet of Pickwick.

Yellow Medicine County

Granite Falls vicinity. Upper Sioux Agency, sec. 29, 30, 32, T. 115 N., R. 36 W.

MISSISSIPPI

Adams County

Natchez. D'Arnaud, D'Arnaud Drive.
Natchez. King's Tavern, 611 Jefferson Street.
Natchez vicinity. *Futherford Plantation Site, 3 miles southeast of Natchez.
Natchez vicinity. *Longwood, 15 miles southeast of Natchez.
Washington. Jefferson College, North Street.

Alcorn County

Riema. Jacinto Courthouse, Route 1.

Carroll County

Avalon vicinity. Teas Creek Site, SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 20 N., R. 2 E.
Carrollton. George, James Z., Law Office, Washington Street between Lexington and Green Streets.
Carrollton. Merrill's Store, corner of Jackson and Lexington Streets.
Carrollton vicinity. Malmoson Site, 6 miles northeast of Carrollton in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 10 N., R. 3 E.

Clatsop County

Port Gibson. Van Dorn House, Van Dorn Drive.
Port Gibson vicinity. Windsor Ruins, 12 miles southwest of Port Gibson on Mississippi 552.

Harrison County

Elford. Beauvoir, 200 West Beach Boulevard.
Gulfport vicinity. Fort Massachusetts, south of Gulfport on Ship Island.

Hinds County

Bolton vicinity. Champion Hill Battlefield, approximately 4 miles southwest of Bolton.
Bovina vicinity. Floyd Mound, NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 14 N., R. 5 E.
Edwards vicinity. Dupree Mound and Village Archeological Site, SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 5 N., R. 3 W.

Jackson. Capitol Green, 100 North State Street.
City Hall, 200 South President Street.
Governor's Mansion, 316 East Capitol Street.

New Capitol, Mississippi Street between North President and North West Streets.
Old Capitol, 100 North State Street.
Pocahontas. Pocahontas Mound A, SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 7 N., R. 1 W.

Raymond vicinity. Raymond Battlefield, 25 miles southwest of Raymond on Mississippi 18.

Smith's Station vicinity (also in Warren County). Big Black River Battlefield, on both banks of the Big Black River between Smith's Station and Bovina.
Terry vicinity. Berry Mound and Village Archeological Site, center NE $\frac{1}{4}$ sec. 12, T. 3 N., R. 1 W.

Holmes County

Richland. Furek's Masonic College, on Mississippi 17.

Jackson County

Panngoula. U.S. Cairo, Ingalls Shipyard.
Jefferson County.

Fayette vicinity. Springfield Plantation, 6 miles west of Fayette via Mississippi 352.

Leflore County

Oxford. *Faulkner, William, House (Bousen Oak), Old Taylor Road.

Lauderdale County

Meridian. Merriehoe, 906 31st Avenue.

Lee County

Baldwyn vicinity. Brices Order Roads National Battlefield Site, 6 miles west of Baldwyn on Mississippi 370.
Tupelo. Tupelo National Battlefield, on Mississippi 6 about a mile west of its intersection with U.S. 45.

Lowe County

Columbia. Lee House (Blewett-Harrison-Lee House), 314 North Seventh Street.

Marion County

Sandy Hook vicinity. Ford House, south of Sandy Hook on Old Columbia-Ovington Road.
Warren County.

Bovina vicinity (also in Hinds County). Big Black River Battlefield.

Vicksburg. Balfour House, 1002 Crawford Street.

Vicksburg. *Old Courthouse, Warren County, Court Square.

Vicksburg. Pemberton House (Wills-Cowen House), 1020 Crawford Street.

Vicksburg. Planters Hall, 822 Main Street.

Vicksburg and vicinity. Vicksburg National Military Park.

Yazoo County

Holly Bluff. *Holly Bluff Site.

MISSOURI

Adair County.

Kirkville vicinity. Thousand Hills State Park Petroglyphs Archeological Site, 2.3 miles west of Kirkville.

Atchison County.

Tarkio. Mule Barn Theatre (David Rankin Mule Barn), 10th and Park Streets.

Berry County.

Monett vicinity. Courdin, David W., House, 2.4 miles southeast of Monett on Blacktop Road.

Barton County.

Lamar. Truman (Harry S.) Birthplace Memorial, north corner, 11th Street and Truman Avenue.

Benton County

Princeton vicinity. Rodgers Shelter Archeological Site, 5 miles west of Princeton.

Boone County

Columbia. *Sawborn Field and Soil Erosion Plate, University of Missouri campus.

Buchanan County

St. Joseph. King's Hill Archeological Site, 5000 South First Street.

St. Joseph. *Feier (Johas) House, 12th and Penn Streets.

St. Joseph. Pony Express Station, 914 Penn Street.

Butler County

Naylor vicinity. Koehler Fortified Archeological Site, 1 mile northeast of Naylor.

Caldwell County

Kingston. Caldwell County Courthouse, Main Street.

Kingston vicinity. Far West, 3.5 miles west of Kingston via County Routes D and H.

Callaway County

Fulton. *Westminster College Gymnasium, Westminster College campus.

Mokane vicinity. Neely Mounds Archeological Site, 2 miles northeast of Mokane.

Portland vicinity. *Research Cave.

Tebbetts vicinity. Cote Sans Dessein Archeological Site, 3 miles southwest of Tebbets.

Cape Girardeau County

Burlfordville. Burlfordville Mill, Missouri 34.

Burlfordville vicinity. Burlfordville Covered Bridge, eastern edge of Burlfordville on County Route 11.

Orisole vicinity. Trail of Tears State Park Archeological Site, north of Orisole on the Mississippi River.

Carroll County

Miami Station vicinity. Wright II Archeological Site, 1 mile south of Miami Station.

Cass County

Harrisonville vicinity. Brown, Robert A., House, 0.7 mile north of Harrisonville on U.S. 71 Bypass, 0.5 mile west and north-west on gravel road.

Chariton County

Keytesville. Chariton County Courthouse, State Street.

Keytesville. Hull Homestead, 100 West North Street.

Clark County

Canton vicinity. Boulware Mound Group Archeological Site, 10 miles north of Canton and adjacent to west side of U.S. 61.

Clay County

Excelsior vicinity. *Watkins Mill, 6 miles northwest of Excelsior.

Liberty vicinity. Nebo Hill Archeological Site, 3 miles southeast of Liberty.

Cole County

Jefferson City. Cole County Historical Society Building, 100 Madison Street.

Jefferson City. Governor's Mansion, 100 Madison Street.

Jefferson City. Lohman's Landing Building, west corner, intersection of Jefferson and Water Streets.

Jefferson City. Missouri State Capitol Building and Grounds, High Street between Broadway and Jefferson Streets.

Oage City vicinity. Gay Archeological Site, 0.5 mile northeast of Oage City.

Cooper County

Boonville. Harley Park Archeological Site, SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 49 N., R. 16 W.

Boonville, Lytle Theater, northeast corner Main (Fifth) and Vine Streets.

Lamine vicinity, Miller Village and Mounds Archeological Site, 3 miles north of Lamine. Woodbridge vicinity, Woodbridge Archeological Site, 0.8 mile northwest of Woodbridge.

Crawford County

Lansburg vicinity, Scotia Iron Furnace Stack, 6.3 miles southeast of Lansburg on County Route 11.

Franklin County

Moselle vicinity, Moselle Iron Furnace Stack, 1 mile southeast of Moselle.

St. Albans vicinity, Towers Cove, 2 miles northeast of St. Albans on the Chicago, Rock Island & Pacific Railroad.

Gauley County

Barn vicinity, Fernie Archeological Petroglyphic Site, 3 miles east of Barn.

Hermann, Old Stone Hill Historic District, bounded by West 12th, George, Jefferson Streets, and Iron Road.

Greene County

Ash Grove vicinity, Boone (Mathias) House, 1.75 miles north of Ash Grove on Missouri V.

Springfield vicinity, Wilson's Creek National Battlefield, southwest of Springfield on Missouri 174.

Howard County

Boonsboro vicinity, Boonslick State Park, SW $\frac{1}{4}$, NW $\frac{1}{4}$, sec. 6, T. 40 N., R. 17 W.

Payette vicinity, Morrison (Alfred W.) House, Llar Hill, 1 mile southwest of Payette on Missouri 21.

Glauco, Glauco Public Library, northwest corner, Market and Fourth Streets.

Iron County

Ironton, St. Paul's Episcopal Church, northwest corner, Knob and Reynolds Streets.

Pilot Knob vicinity, Fort Davidson, on County Route 21 south of intersection with County Route V.

Jackson County

Independence, Jackson County Jail and Marshall's House, 217 North Main Street.

Independence, Temple Site, corner of Lexington Avenue and River Boulevard.

Independence, Telle (Henry M.) Mansion, 1500 North Liberty and 1525 North Osage Streets.

Kansas City, Emery, Reed and Thayer Building, 1808-18 Grand Avenue.

Kansas City, Kate Building (Riley Building), 1130 Walnut Street.

Kansas City, Myers (Alexander) House, 2145 State Line Road.

Kansas City, Scott Building and Arcade, corner of Ninth and Grand Streets, and 619 Walnut Street.

Kansas City, 20 West Ninth Street Building (New York Life Building), 20 West Ninth Street.

Kansas City, Wornall House, 145 West 61st Street.

Shiley, "Fort Osage, north edge of Shiley on the Missouri River.

Jefferson County

Hillsboro vicinity, Sandy Creek Covered Bridge, 5 miles north of Hillsboro on U.S. 21, east on Goldenrod Road, and southwest on Lenox Ferry Road.

Johnson County

Warrensburg, Johnson County Courthouse (Old Johnson County Courthouse), Old Public Square.

Lafayette County

Lexington, Anderson House and Lexington Battlefield, bounded on the west by 18th Street, on the northwest by the Missouri Pacific Railroad, on the south by Oak and Wood Streets, and on the east by the continuation of 18th Street.

Lexington, Lafayette County Courthouse, Public Square.

Lawrence County

Mount Vernon vicinity, Old Spanish Fort Archeological Site, 3 miles south of Mount Vernon.

Linn County

Laclede, Pershing (General John J.) Boyhood Home, State and Western Streets.

Laclede vicinity, Locust Creek Covered Bridge, 3 miles west of Laclede on U.S. 40, then north 1 mile and east 0.83 mile on a gravel road.

Marion County

Hannibal, "Fossil (Mark) Boyhood Home, 238-268 Hill Street.

Palmyra, Gardner House, 421 South Main Street.

Mississippi County

Cresco vicinity, Cresco Fortified Village Archeological Site, 1 mile south of Cresco.

East Francis vicinity, Edwards Village Archeological Site, 7 miles southeast of East Francis at the intersection of County Routes AA and FF.

Wolf Island vicinity, Beckwith's Fort Archeological Site, SW $\frac{1}{4}$, sec. 28, T. 24 N., R. 17 E.

Missouri County

California, Missouri County Courthouse Square, Public Square.

Jamestown vicinity, Geiger Archeological Site, 3 miles east of Jamestown.

Monroe County

Florida vicinity, Ogden Mound Group Archeological Site, 1 mile north of Florida.

Florida vicinity, Tule (Mark) Shipwreck Cabin, Mark Tule State Park, 0.25 mile south of Florida on Missouri 107.

Paris vicinity, Union Covered Bridge, about 8 miles southeast of Paris on the Elk Park of the Salt River.

Montgomery County

Big Spring vicinity, Pinnacle Lake Shelter, 3 miles northeast of Big Spring.

Minerva vicinity, "Grubbs Cove, 0.5 mile north of Minerva.

New Madrid County

Libours, Libours Fortified Village Archeological Site, within city limits of Libours.

Sikeston vicinity, Sikeston Fortified Village Archeological Site, 2 miles southeast of Sikeston.

Newton County

Diamond vicinity, George Washington Carver National Monument, 3 miles south of Diamond.

Oregon County

Riverton vicinity, Payman Mound Archeological Site, 3 miles southeast of Riverton.

Pemiscot County

Caruthersville vicinity, Murphy Mound Archeological Site, north side of County Route D, 1.5 miles south of intersection of County Routes D and U.

Denton vicinity, Denton Mound and Village Archeological Site, 1 mile northeast of Denton.

Wardell vicinity, Wallace, J. M., Archeological Site (Wardell Mounds), 1 mile southwest of Wardell.

Perry County

Wittenburg vicinity, Tanner Arch., 1 mile south of Wittenburg, east 1 mile from County Route A.

Phelps County

Newburg vicinity, Gould Creek Cave Archeological Site, 8 miles southwest of Newburg.

Newburg vicinity, Clark Iron Furnace Stack, SW $\frac{1}{4}$, NW $\frac{1}{4}$, sec. 21, T. 27 N., R. 9 W.

St. James vicinity, Newman Drumparks District, 7 miles south of St. James on Missouri 8.

Pike County

Rolla vicinity, St. John's Episcopal Church, 0.25 mile north of Rolla on County Route 13, 0.25 mile east on County Route 12.

Platte County

Kansas City vicinity, Deider Archeological Site, within Kansas City limits, Line Creek Park.

Riverside vicinity, Benson Village Archeological Site, 0.25 mile southwest of Riverside.

Polk County

Beckham vicinity, Decker Cove Archeological Site, 4 miles southwest of Beckham.

Randolph County

Cairo vicinity, Mitchell Petroglyphic Archeological Site, 6 miles east of Cairo.

St. Charles County

St. Charles, First Missouri State Capitol Buildings, 238-16 South Main Street.

St. Charles, St. Charles Historic District, bounded on the north by the south line of Madison Street, on the east by the Missouri River, on the east (west of Main Street) by the north line of Chamouny Street and (west of Main Street) by a line running along the west line of Main Street 190 feet south from the south line of the Normal Road and thence westward 50 feet to a point 30.5 feet south of the Normal Road, and on the west by an alley running north and south from Boonlick Road to Madison Street.

St. Charles, Shaw House, 214-220 South Main Street.

St. Genevieve County

St. Genevieve, "Bullfinch (Louis) House, 123 South Main Street.

St. Genevieve, Goodwood (Augustus Duberstein) House, northwest corner, Fourth and Merchant Streets.

St. Genevieve, "St. Genevieve Historic District.

St. Genevieve vicinity, Common Field Archeological Site, 7 miles south of St. Genevieve.

St. Mary vicinity, The Kreilich Archeological Site, 3 miles southeast of St. Mary.

St. Louis (Independent city)

"Anheuser-Busch Brewery, 731 Potlauer Street.

Bevel Street Water Tower, intersection of Bevel Street and Blair Avenue.

"Eads Bridge, spanning the Mississippi River at Washington Street (also in St. Clair County, Ill.).

"Goldendome Showboat, 400 North Wharf Street.

Grand Avenue Water Tower, intersection of East Grand Avenue and 29th Street.

Jefferson National Expansion Memorial National Historic Site, on the Mississippi River between Washington and Poplar Streets.

"Old Post Office, Eighth and Olive Streets.

"St. Louis Union Station, 18th and Market Streets.

Shaw's Garden (Missouri Botanical Garden), bounded by Tower Grove Avenue and Magnolia, Alfred, and Shaw Streets.
 *Wainwright Building, 700 Chestnut Street.
 Wainwright Tomb, Bellefontaine Cemetery, 4847 West Florissant Avenue.

St. Louis County

Afton, Benoit (Louis Auguste) House, 7802 Genesta Street.
 Clayton, Hanley, Martin Franklin, House, 7600 Westmoreland Avenue.
 Crescent vicinity, Crescent Quarry Archeological Site, 1 mile east of Crescent.
 Webster Groves, Hawken House, 9442 Big Bend Boulevard.

Saline County

Arrow Rock, *Arrow Rock, Arrow Rock State Park.
 Arrow Rock, *Bingham (George Caleb) House, Arrow Rock State Park.
 Arrow Rock vicinity, Seppington (William B.) House, 3 miles southwest of Arrow Rock on County Route TT.
 Malta Bend vicinity, Gumbo Point Archeological Site, 3 miles northwest of Malta Bend.
 Marshall vicinity, *Utz Site, 12 miles north of Marshall, adjoining Van Meter State Park.
 Malta Bend vicinity, Plattner Archeological Site, 1 mile north of Malta Bend.
 Miami vicinity, Guthrie Archeological Site, 1.75 miles east-northeast of Miami.
 Miami vicinity, The Old Fort, Van Meter State Park.

Scott County

Diehlstadt vicinity, Brown, E. L., Village and Mound Archeological Site, 2 miles north-east of Diehlstadt.
 Diehlstadt vicinity, Sandy Woods Settlement Archeological Site, 1.75 miles northwest of Diehlstadt.

Shelby County

Bethel, Bethel Historic District, bounded on the north by a line parallel to and 322 feet north of Fourth Street, bounded on the east and west by lines parallel to and approximately equidistant (513 feet) from Main Street running south 1,930 feet to the southern boundary; bounded on the south by a line parallel to and 312 feet south of First Street.
 Bethel vicinity, Elson (Dr. William Kell House), 1.5 miles east of Bethel.

Stoddard County

Bernie vicinity, Rich Woods Archeological Site, 2 miles north of Bernie.

Texas County

Buckyrus vicinity, White Rock Bluffs Archeological Photograph Site, 2 miles south of Buckyrus.

Vernon County

Arthur vicinity, Coal Pit Archeological Site, 1 mile northwest of Arthur.
 Fair Haven vicinity, Brown Archeological Site, 2 miles west of Fair Haven.
 Nevada vicinity, Carrington Ossage Village Site, north of Nevada, on west edge of Green Valley Prairie.

Warren County

Marthasville vicinity, Borgmann Mill, 5 miles east of Marthasville on County Route D.
 Marthasville vicinity, Callaway (Flanders) House, 1 mile south of Marthasville on Missouri 94.

Washington County

Caledonia vicinity, Lost Creek Photograph Archeological Site, 2 miles northeast of Caledonia.

Fertile vicinity, Cresswell Petroglyph Archeological Site, 2 miles east of Fertile.
 Fertile vicinity, Washington State Park Petroglyph Archeological Site, 1 mile northeast of Fertile.

Wright County

Manfield vicinity, Wilder, Laura Ingalls, House, 1 mile east of Manfield on U.S. Business 60.

MONTANA

Beaverhead County

Armstead vicinity, *Lemhi Pass (see Lemhi County, Idaho).
 Dillon vicinity, *Bannack Historic District, 22 miles from Dillon on secondary road off Montana 278.
 Wisdom vicinity, Big Hole National Battlefield, 12 miles west of Wisdom.

Blaine County

Chinook vicinity, Chief Joseph Battleground of the Bear's Paw (Bearpaw Mountain Fight), about 15 miles south of Chinook.

Big Horn County

Hardin vicinity, Custer Battlefield National Monument, 15 miles south of Hardin.
 Pryor vicinity, Chief Plenty Coups Memorial, 1 mile west of Pryor on Montana 416.

Cascade County

Great Falls, *Russell (Charles M.) House and Studio, 1217-19 Fourth Avenue North.
 Great Falls vicinity, *Great Falls Portage, southeast of Great Falls at junction of Montana 87, 89, and 91.

Chouteau County

Fort Benton, *Fort Benton.

Dawson County

Glenview vicinity, *Hagen Site, 5 miles southeast of Glenview on secondary road.

Gallatin County

Logan vicinity, Madison Bufalo Jump State Monument, sec. 34, T. 1 N., R. 2 E.
 Three Forks vicinity, *Three Forks of the Missouri, northeast of Three Forks on the Missouri River, Missouri Headwaters State Monument.

Glacier County

Browning vicinity, *Camp Disappointment, 12 miles northeast of Browning on the Blackfoot Reservation.

Lewis and Clark County

Helena, Former Executive Mansion, Sixth Avenue and Ewing Street.
 Helena, Kluge House, 540 West Main Street.

Madison County

Dillon vicinity, Beaverhead Rock, NW $\frac{1}{4}$ and N $\frac{1}{2}$ SW $\frac{1}{4}$ sec. 23, T. 5 S., R. 7 W.
 Virginia City, *Virginia City Historic District, Wallace Street.

Meagher County

White Sulphur Springs vicinity, Fort Logan, 15 miles northwest of White Sulphur Springs.

Missoula County

Lolo vicinity, *Traveler's Rest, 1 mile south of Lolo near U.S. 93.
 Lolo vicinity, *Lolo Trail (see Clearwater County, Idaho).

Pondera County

Browning vicinity, Two Medicine Fight Site, about 25 miles southeast of Browning.

Powell County

Deer Lodge, *Grant-Kohrs Ranch, edge of Deer Lodge.

Ravalli County

Hamilton vicinity, Canyon Creek Laboratory of the U.S. Public Health Service, 0.75 mile west of the Hamilton city limits.
 Stevensville, St. Mary's Mission Church and Pharmacy, North Avenue.
 Stevensville vicinity, Fort Owen, about 0.5 mile northwest of Stevensville.

Roosevelt County

Fort Union Trading Post National Historic Site (see Williams County, N. Dak.).
 Poplar, Fort Peck Agency, parts of T. 27 N., R. 50 E. and T. 27 N., R. 51 E.

Silver Bow County

Butte, *Butte Historic District.
 Butte, Clark W. A., Mansion, 219 West Granite.

Wibaux County

Wibaux, Wibaux, Pierre, House, Orgain Avenue.

Yellowstone County

Billings vicinity, *Photograph Cave, 7 miles southeast of Billings via U.S. 87 and secondary road, Indian Caves Park.
 Pompey's Pillar vicinity, *Pompey's Pillar, west of Pompey's Pillar on U.S. 10.

NEBRASKA

Antelope County

Neligh, Neligh Mill, 111 West Second Street.

Burt County

Oakland vicinity, Logan Creek Site, SE $\frac{1}{4}$ sec. 11, SW $\frac{1}{4}$ sec. 12, T. 12 N., R. 8 E.

Cass County

Murray vicinity, *Gilmore (Walker) Site (Stearns Creek Site), 5 miles southeast of Murray.
 Nehawka vicinity, Nehawka Flint Quarries, 2 miles north of Nehawka.

Cuming County

Bancroft, Neidhardt, John G., Study, northwest corner, Washington and Grove Streets.

Custer County

Broken Bow vicinity, Haumont House, 10 miles northwest of Broken Bow.

Dakota County

Dakota City, Emmanuel Lutheran Church, 1800 Hickory Street.

Dawes County (also in Sioux County)

Crawford vicinity, *Fort Robinson and Red Cloud Agency, 2 miles west of Crawford.

Dawson County

Gothenburg vicinity, Midway Stage Station, 3 miles south of Gothenburg.

Douglas County

Omaha, Bank of Florence, 8502 North 30th Street.

Omaha, Crook (General George) House, Quarters No. 1, Fort Omaha.

Omaha, Union Passenger Terminal, 10th and Marcy Streets.

Deuel County

Big Springs, Phelps Hotel, northeast corner Second and Pine Streets.

Gage County

Beatrice vicinity, Homestead National Monument, 4 miles northwest of Beatrice on Nebraska 4.

Garden County

Lewellen vicinity, *Ash Hollow Cave, 2 miles southeast of Lewellen.

Howard County

Columbia vicinity. "Couch Site, 6 miles northwest of Columbia on Dutch Creek. Palmer vicinity. "Palmer Site, 4 miles north and 1 mile west of Palmer on Long River.

Kearney County

Kearney vicinity. Fort Kearney, 9 miles west of Newark on Nebraska St.

Keith County

Brule vicinity. Diamond Spring Stage Station, 1 mile west of Brule still on Interstate 80.

Lexington County

Lexington. "Byers (William Jennings) House, Fairview, 4000 Summer Street.
Lexington. City Hall, 225 O Street.
Lexington. Kennard (Thomas F.) House (Nebraska Statehood Memorial), 1222 E Street.
Lexington. Lewis-Syford House, 7th North 19th Street.
Lexington. Nebraska State Capitol, 14th E Street.
Lexington. Rock Island Depot, 15th O Street.

Morrill County

Report vicinity. Cheyenne Rock National Historic Site, 3 miles southwest of Report of Nebraska St.

Nemaha County

Genoa vicinity. Genoa Site, 1 mile south of Genoa on Nebraska St.

Nemaha County

Brownville, Brownville Historic District, bounded on the south by Allen and Harvard Streets, on the north by Nemaha and Nebraska Streets, on the east by Seventh Street, on the west by the Missouri River, and on the northwest and southwest by Second Street.

Otoe County

Nebraska City. U.S. Post Office, 322 South High Street.
Nebraska City vicinity. Morris (J. Sterling) House (Arthur Lodge), Arthur Lodge State Park.

Red Willow County

McCook. "Morris (Senator George William) House, 704 Morris Avenue.

Richardson County

Boile vicinity. "Leary Site, 4 miles southeast of Boile.

Sarge County

Bellevue, Burlington Depot (Omaha & Southern Railroad Station), Haworth Park.
Bellevue. Fontenelle Park, 2223 Main Street.
Bellevue. Swallow (William) House, 2223 Bluff Street.
Bellevue. Old Log Cabin, 2225 Hazard Street.
Bellevue. Presbyterian Church, 2225 Franklin Street.

Smith Bluff County

Geary vicinity. "Robinson Park, 9 miles west of Geary.
Geary vicinity. Smith Bluff National Monument, 9 miles west of Geary on Nebraska St.
Geary vicinity. "Rogers Park, 13 miles west of Geary.

Stearns County

"Fort Robinson and Red Cloud Agency (see Dawes County).

Valley County

North Leno vicinity. "Schultz Site, 3 miles northwest of North Leno.

Washington County

Blair vicinity. Bedford (Washington), De Rosa National Wildlife Refuge.
Fort Calhoun vicinity. "Fort Calhoun, 1 mile east of Fort Calhoun.

Webster County

Red Cloud. Collier House, southeast corner, Third and Cedar Streets.
Ogala Rock vicinity. "Pike Pioneer Village Site (Pike Site), 4 miles southwest of Ogala Rock.

Nemaha

Lander County

Aurora. Aurora Historic District.

Laramie County

Woods vicinity. "Fort Churchill, U.S. M.D., 3 miles south of U.S. St.

Nye County

Berlin. Berlin Historic District, on St. T. 12 N., E. 30 E.

Parkinson County

Lowell vicinity. "Leonard Rockwell, 12 miles south of Lowell of Nevada St.

Storey County

Virginia City. "Physica City Historic District.

Washoe County

Reno. "Kendall (Senator Francis G.) House, 7 Elm Court.

White Pine County

Ely vicinity. Fort Charred Creek, of U.S. 4-50-50, then 24 miles south via Cave Valley Road.
Ely vicinity. "Fort Riley, near Ely on a secondary road, west side of Ruby Lake.

New Hampshire

Railway County

Lexington. Railway-Railway Mill, 222 Street.
Lexington. Sand-Sandery Mill, 222 Street.

Cherokee County

Barfieldville, Barfieldville Historic District.

Hillsboro County

Hillsboro vicinity. "Perry (Franklin) Home, 3 miles west of Hillsboro on New Hampshire St.

Nashua. Shad Memorial Library, 5 Main Street.

Peterborough. "Macdonald Colony, west of U.S. St.

Harrison County

Concord. Pierce (Franklin) House, 22 Main-grove Street.

Bedford County

Derry vicinity. "Ford (Robert) Rowland, 3 miles southeast of Derry on New Hampshire St.

Exeter. Dudley House (Perry-Dudley House), 24 Front Street.

Exeter. The First Church (Congregational Church), 21 Front Street.

Portsmouth. "Jackson (Richard) House, Northwest Street.

Portsmouth. "Majors-River House, Chapel and Daniel Streets.

Portsmouth. "Moffatt-Ladd House, 124 Market Street.

Portsmouth. "Westworth-Gardner House, 120 Mechanic Street.

Portsmouth. Westworth, Jackson House, 123 Hammer Street.

Portsmouth. Whidden-Ward House, 123 Dorr Street.

Portsmouth vicinity. "Westworth-Chadler House, 2 miles south of Portsmouth, of U.S. 14.

Burlington County

Plainfield vicinity. Saint-Gaudens National Historic Site, south of Plainfield on New Hampshire St.

New Jersey

Atlantic County

Atlantic City. Atlantic Lighthouse, Terminal and Pacific Avenue.

Margate City. Burg, the Margate Elephant, Denton and Atlantic Avenue.

Sumner Point. Sumner Mansion, Shore Road and Sumner Point Circle.

Bergen County

Hoboken. "The Herwings, 225 North Franklin Turnpike.

"Palatka Indemile Park, west bank of Hudson River (also in Orange and Rockland counties, N.Y.).

River Edge. Southern House (Adriatic-Adriatic-Street House), New Ridge Road.

Washington Township (Westwood). Iron Church (Adriatic-Adriatic-Street House), 25 Channing Ridge Court.

Burlington County

Belle. Belle Village, Route 542, 12 miles west of Hammonton.

Berkeley. "Berkshire, Francis, House, 222 Parkworth Avenue.

Medford vicinity. Kirby's Mill (Hudson Mill), northwest of Medford at Church Road and Parkworth Road.

Camden County

Camden. Newton Friends Meetinghouse, 222 Cooper Street.

Camden. Foxcroft Hall (Cooper House), Park Boulevard and Pacific Avenue.

Camden. Taylor, Jr. Henry Grant, House and Office, 222 Cooper Street.

Camden. "Whitman (Walt) House, 222 Middle Street.

Edgewater. Indian King Tavern, 222 King Highway East.

Cape May County

Cape May. Cape May Historic District, bounded on the south by the Atlantic Ocean from Second Avenue on the west to the Coast Guard base on the east.

bounded on the north by Cape May Harbor in Schuylers Creek to Cape May Harbor and then westerly to Sixth Avenue. Some south on Pacific Avenue to Sunset Boulevard, south to Cape May Road, east to Broadway, south to Mount Vernon Avenue and west to Second Avenue.

Cumberland County

Brighton. Fuller's Tavern, 45-47 Broad Street.

Essex County

Newark. Spedden House, Old Road to Woodfield.

West Orange. Edison National Historic Site, Main Street between Allen and Lambert Streets.

Hudson County

Jersey City. Hudson County Courthouse, Newark Avenue.

State of Liberty National Monument (see New York County, N.Y.).

Passaic County

Lanternville. Marshall, James W., House, 45 Bridge Street.

Morris County

Princeton. "Cleveland (Green) House (Westwood), 22 Ridge Road.

Princeton. "Hwy (Joseph) House, Princeton University campus.

Princeton. Morris, Madison Street.

Princeton, *Nassau Hall, Princeton University, Princeton University campus.
 Princeton, *President's House (Maclean House), Nassau Street.
 Princeton, *Princeton Battlefield, Princeton Battlefield State Park.
 Trenton, Douglas House, John Fitch Way.
 Trenton, Mercer Street Friends Center (Chesterfield Friends Meetinghouse), 151 Mercer Street.
 Trenton, Old Barracks, South Willow Street.
 Trenton, The Old Ryan Farm, 2306 Pennington Road.
 Trenton, *Trent (William) House, 599 South Warren Street.
 Washington Crossing vicinity, *Washington Crossing State Park (see Bucks County, Pa.).

Middlesex County

Cranbury, Old Cranbury School, 23 North Main Street.
 Perth Amboy, Proprietary House (The Westminster), 139-151 Kearny Avenue.
 Placataway, Ivy Hall (Cornelius Loose House), 1225 River Road.

Monmouth County

Freshhold vicinity, *Monmouth Battlefield, northwest of Freshhold on New Jersey 522.
 Highlands, Twin Lighthouses (Manesek Light-house), south of New Jersey 98 on a promontory between the Navesink River and Sandy Hook Bay.
 Middletown, Christ Church, Middletown, 92 King's Highway.
 Sandy Hook, *Sandy Hook Light.

Morris County

Morristown, Morristown National Historical Park.
 Morristown, *Nast (Thomas) Home (Villa Fontana), MacCulloch Avenue and Miller Road.
 Morristown, Speedwell Village, 233 Speedwell Avenue.

Ocean County

Barnegat Light, Barnegat Lighthouse, northern end of Long Beach Island.
 Lakeland vicinity, *Hanger No. 1, Lakeland Naval Air Station, north of Lakeland on County Route 547.

Passaic County

Hewitt vicinity, *Ringwood Manor, 3 miles east of Hewitt, Ringwood Manor State Park.
 Mountain View, Van Duzee House, 636 Fairfield Road.
 Paterson, Great Falls of Paterson and Society for Useful Manufactures Historic District, bounded on the north by West Broadway and Ryle Avenue, on the south by Grand Street, on the east by Morris, Barbour, Spruce, Market, Mill, Van Houten, Curtis, and River Streets; and on the west by the west bank of the Passaic River, crossing at Wayne and McBride Avenue, then south to Grand Street.
 Wayne, Dey Mansion, 129 Tolowa Road.

Salem County

Hanocks Bridge, Hanock House.

Somerset County

Kingsland vicinity, Rockingham, north of Kingsland on Old Bokey Hill Road.
 Morristown, Morristown National Historical Park (see Morris County).
 Raritan, Frelinghuysen, General John, House, Somerset Street and Wyckoff Avenue.
 Somerville, Old Dutch Parsonage, 98 Washington Place.
 Somerville, Wallace House, 58 Washington Place.

Sussex County

Newton, Merriam, Henry W., House, 131 Main Street.

Union County

Elizabeth, Barnwood Hall (Boudinot Mansion), 1078 East Jersey Street.
 Union, First Presbyterian Congregation of Connecticut Farms, Stuyvesant Avenue at Chestnut.

NEW MEXICO

Bernalillo County

Albuquerque, San Felipe de Neri Church, Old Town Plaza.

Catron County

Silver City vicinity, Gila Cliff Dwellings National Monument, 47 miles north of Silver City on New Mexico 25 and 527.

Colfax County

Abbott vicinity, Dorsey Mansion, c. 12 miles northeast of Abbott via U.S. 86 and an unpaved country road.
 Baton vicinity, *Baton Pass, U.S. 86 and 87 (also in Las Animas County, Colo.).
 Springer, Mills House, 509 First Street.

Dona Ana County

Las Cruces vicinity, Fort Selden, 18 miles north of Las Cruces via Interstate 25 at Radium Springs Interchange.
 Las Cruces vicinity, *Mesilla Plaza, 2 miles south of Las Cruces on New Mexico 28.

Eddy County

Carlsbad vicinity, *Carlsbad Reclamation Project, north of Carlsbad.

Grant County

Chief vicinity, Woodrow Ruin, c. 5 miles northeast of Chief on New Mexico 283.

Lincoln County

Lincoln, *Lincoln Historic District, U.S. 890.
 White Oaks, White Oaks Historic District, bounded on the west by the line separating sections 25 and 26 and 35 and 36 of T. 8 S. R. 1 E.; on the south by a line running 8,977.86 feet west which intersects the southernmost boundary of Cedarvale Cemetery; thence north 8,944.38 feet; thence south 8,977.86 feet; thence south 8,944.38 feet to the beginning point.

Los Alamos County

Los Alamos, *Los Alamos Scientific Laboratory, Central Avenue.

McKinley County

Manuelito vicinity, *Manuelito Complex, 6 miles south of Manuelito on secondary roads.
 Thoreau vicinity, Chaco Canyon National Monument, 64 miles north of Thoreau on New Mexico 56.

Mora County

Wagon Mound vicinity, *Wagon Mound, east of Wagon Mound on U.S. 85.
 Watrous, *Watrous (La Junta), U.S. 85.
 Watrous vicinity, Fort Union National Monument, 9 miles north of Watrous on New Mexico 477.

Rio Arriba County

Blanco vicinity, Francis Canyon Ruin, SE¼, SE¼, sec. 31, T. 30 N., R. 6 W.
 Cafones vicinity, Tipping, 18 miles south of Cafones on Pueblo Mesa.
 Espadilla vicinity, *Pay Ruins, 14 miles west of Espadilla on New Mexico 30 and 5, Santa Clara Indian Reservation.

San Juan Pueblo vicinity, *San Gabriel de Yanguingue, 1 mile west of San Juan Pueblo on New Mexico 74 and secondary roads.

Roosevelt County

Glovie vicinity, *Anderson Basin (Blackwater Draw), 12 miles south and 6 miles east of Glovie via U.S. 70 and secondary roads.

San Juan County

Astec vicinity, Astec Ruins National Monument, 1 mile north of Astec on secondary road.
 Farmington vicinity, Salmon Ruin, 9 miles east of Farmington off New Mexico 17.

San Miguel County

Bell ranch vicinity, Bell Ranch Headquarters, north and east of the Cochise Reservoir.
 Pecos vicinity, Pecos National Monument, south of Pecos on New Mexico 63.
 Santa Fe vicinity, *Glorieta Pass Battlefield, 20 miles southeast of Santa Fe on U.S. 84-65 and New Mexico 66 (also in Santa Fe County).

Sandoval County

James Springs vicinity, San Juan Mesa Ruin, SE¼, SW¼, sec. 25, T. 18 N., R. 2 E., southeast of James Springs.
 Los Alamos vicinity, Bandelier National Monument, 12 miles south of Los Alamos on New Mexico 4.
 Bernalillo vicinity, *Sandia Cave, 11 miles east of Bernalillo on New Mexico 44, Cibola National Forest.
 Chaco Balconar vicinity, *Big Bend Mesa, west of Chaco Balconar on secondary roads, Cibola National Forest.

Santa Fe County

Santa Fe, *Barrio de Analco Historic District, bounded on the south by properties fronting on K. De Vargas Street, on the west by properties fronting on College Street, on the east by property lines of St. Michael's Dormitory and the San Miguel Chapel, and on the north by the San Miguel Chapel, R. De Vargas Street, the State Parks Building property, and the Santa Fe River.
 Santa Fe, Dancy, Randall, House, Upper Canyon Road.
 Santa Fe, National Park Service Southwest Regional Office, Old Santa Fe Trail.
 Santa Fe, *Palace of the Governors, The Plaza.
 Santa Fe, *Rendezvous of Our Lady of Light, Christ the King Church, Canyon Road and Cristo Rey Street.
 Santa Fe, *Santa Fe Plaza.
 Santa Fe vicinity, *Glorieta Pass Battlefield (see San Miguel County).
 Santa Fe vicinity, *San Lazaro, 25 miles south of Santa Fe via New Mexico 19 and secondary road.
 Santa Fe vicinity, *Seton Village, 6 miles south of Santa Fe off U.S. 84-65 and secondary road.
 Truchas vicinity, *El Santuario de Chimayo, south of Truchas in Chimayo.

Socorro County

Blingham vicinity, *Trinity Site, 25 miles south of U.S. 380 on White Sands Missile Range.
 Gran Quivira vicinity, Gran Quivira National Monument, 1 mile east of Gran Quivira on New Mexico 10 (also in Turquoise County).
 Magdalena vicinity, Gallinas Springs Ruin, SE¼, SE¼, sec. 27, T. 1 S., R. 6 W.
 Socorro vicinity, Fort Craig, 37 miles south of Socorro.

Taos County

Las Trampas, *San Jose de Gracia Church.
 Las Trampas, *Las Trampas Historic District.
 Rancho de Taos, *San Francisco de Asis Mission Church, on the Plaza.
 Taos, *Blumenfelds (Ernest L.) House, Ledoux Street.
 Taos, *Curson (Kit) House, Kit Curson Avenue.
 Taos vicinity, *Taos Pueblo, 3 miles north of Taos.

Torrance County

Gran Quivira National Monument (see Socorro County).

Abd. vicinity. *Abo, 3 miles west of Abd on U.S. 60 and secondary road in Abd State Monument.

Punta de Agua vicinity. *Quaral, 1 mile south of Punta de Agua on secondary road in Quaral State Monument.

Union County

Clayton vicinity. *Rabbit Ears (Clayton Complex), north and west of Clayton.

Folsom vicinity. *Folsom Site, 3 miles west of Folsom on banks of Dead Horse Gulch.

Seneca vicinity. *McNess Crossing Site, on the North Canadian River northeast of Seneca.

Valencia County

Acoma. *San Esteban de Rey Mission Church, on New Mexico 23.

Oasa Blanca vicinity. *Acoma, 13 miles south of Oasa Blanca on New Mexico 23.

El Morro vicinity. El Morro National Monument, 2 miles west of El Morro on New Mexico 53.

Zuni vicinity. *Haukuk, 12 miles southwest of Zuni, Zuni Indian Reservation.

NEW YORK

Albany County

Albany. Albany Academy (Joseph Henry Memorial), Academy Park.

Albany. Albany Union Station, east side of Broadway between Columbia and Steuben Streets.

Albany. Cherry Hill, South Pearl Street between First and McCarthy Avenues.

Albany. New York Executive Mansion, 138 Eagle Street.

Albany. New York State Capitol, Capitol Park.

Albany. New York State Court of Appeals (State Hall), Eagle Street between Pine and Columbia Streets.

Albany. New York State Department of Education Building, Washington Avenue between Hawk and Swan Streets.

Albany. *Schuyler (Philip) Mansion, Clinton and Schuyler Streets.

Albany. Ten Broeck Mansion, 9 Ten Broeck Place.

Albany. Whipple Cist and Wrought-Iron Boasting Truss Bridge, 1000 Delaware Avenue.

Altamont, Delaware & Hudson Railroad Passenger Station (Altamont Village Hall), Main Street and the Delaware and Hudson Railroad.

Coeysmans, Coeysmans School (Action Civil Polytechnic Institute), southwest corner of Westerlo Street and Chivall Avenue.

Cohoes. Harmony Mill No. 3 (Mastodon Mill), 100 North Mohawk Street.

Cohoes. Lock 18 of Enlarged Erie Canal (Double Lock), west of 252 North Mohawk Street, east of Reservoir Street near Manor Avenue.

Cohoes. Music Hall, northwest corner of Remsen and Oneida Streets.

Cohoes. Van Schaick House, Van Schaick Avenue and the Delaware and Hudson Railroad track.

Watervliet. *Watervliet Arsenal, South Broadway.

Watervliet. Watervliet Side Cut Locks (Double Lock), 23d Street at the Hudson River.

Bronx County

The Bronx. *New York Botanical Gardens, Southern and Bedford Park Boulevards.

The Bronx. *Van Cortlandt (Frederick) House, Van Cortlandt Park at 242d Street.

Broome County

Binghamton, Binghamton City Hall, Collier Street between Court and Academy Streets.

Cayuga County

Auburn, Flatiron Building, 1-3 Genesee Street.

Auburn. *Seward (William H.) House, 33 South Street.

Poplar Ridge. *Wood (Jethro) House, New York 34B.

Chautauque County

Chautauque. *Miller (Lewis) Cottage, Chautauque Institution, New York 17J.

Chemung County

Elmira, Chemung County Courthouse Complex, 210-228 Lake Street.

Clinton County

*Adirondack Forest Preserve, northeastern New York State (also in Essex, Franklin, Fulton, Hamilton, Herkimer, St. Lawrence, and Warren counties).

Plattsburgh, Kent-Delord House, 17 Cumberland Avenue.

Plattsburgh, Old Stone Barracks, Rhode Island Avenue, Plattsburgh Air Force Base.

Plattsburgh vicinity. *Plattsburgh Bay, Cumberland Bay, east of Plattsburgh.

Plattsburgh vicinity. *Valcour Bay, 7 miles south of Plattsburgh on the west shore of Lake Champlain.

Columbia County

Church Hill. *Church (Frederic E.) House, Olana, Church Hill, east end of Rip Van Winkle Bridge.

Germantown, Clermont, Clermont State Park.

Hudson, Front Street-Parade Hill-Lower Warren Street Historic District, Warren Street between Second Street and Parade Hill, both sides of North Front and South Front Streets between Diamond and Allen Ferry Streets both sides of Prison Alley between North Front Street and the bluff, the north side of Fleet Street, and Parade Hill, and Franklin Square.

Kinderhook vicinity. *Van Alen (Lucas) House, U.S. 9E, 2.1 miles south of U.S. 9.

Kinderhook vicinity. *Van Buren (Martin) House (Lindenside), east of Kinderhook on New York 32E.

Livingston, Livingston, Henry W. House (The Hill), at intersection of U.S. 9 and New York 82.

New Lebanon. *Mount Lebanon Shaker Society, U.S. 20.

Delaware County

Roxbury vicinity. *Burroughs (John) Home, (Woodchuck Lodge), 2 miles from Roxbury.

Dutchess County

Hyde Park, Home of Franklin D. Roosevelt National Historic Site, 2 miles south of Hyde Park on U.S. 9.

Hyde Park, Vanderbilt Mansion National Historic Site, north edge of Hyde Park, U.S. 9.

Poughkeepsie. *Morse (Samuel F. B.) House, Locust Grove, 370 South Street.

Poughkeepsie, Union Street Historic District, Approximately 8 blocks in downtown Poughkeepsie centered around Union Street.

Poughkeepsie. *Vassar (Matthews) House, Springside, Academy and Livingston Streets.

Erie County

Buffalo, Albright-Knox Art Gallery, 1285 Elmwood Avenue.

Buffalo, Andley Wilcox House National Historic Site, Delaware Avenue.

Essex County

*Adirondack Forest Preserve (see Clinton County).

Crown Point. *Fort St. Frederic, junction of New York 8 and U.S. 9N.

Crown Point vicinity. Fort Crown Point, Crown Point Reservation, west of the south end of Lake Champlain Bridge and New York 8.

Fort Kent. *Watson (Elkanah) House, 3 miles east of U.S. 9.

Ticonderoga vicinity. *Fort Ticonderoga, 25 miles south of Ticonderoga on New York 22.

Franklin County

*Adirondack Forest Preserve (see Clinton County).

Fulton County

*Adirondack Forest Preserve (see Clinton County).

Johnstown. *Johnson Hall, Hall Street.

Genesee County

Batavia. *Holland Land Office, West Main Street.

Greene County

Catskill. *Cole (Thomas) House, 218 Spring Street.

Coxsackie vicinity. *Bronck (Pieter) House, 2 miles northwest of Coxsackie on the west side of U.S. 9W.

Hamilton County

*Adirondack Forest Preserve (see Clinton County).

Herkimer County

*Adirondack Forest Preserve (see Clinton County).

Danube, Herkimer County Courthouse, 320 North Main Street.

Herkimer, Herkimer County Jail, 327 North Main Street.

Indian Castle vicinity. Indian Castle Church, East of Indian Castle on New York 5 South.

Little Falls, Herkimer County Trust Co. Building, corner of Ann and Albany Streets.

Kings County

Brooklyn, Boat House on the Lullwater of the Lake in Prospect Park, Prospect Park.

Brooklyn. *Brooklyn Bridge (also in New York County), across the East River, connecting Brooklyn and Manhattan.

Brooklyn. *Brooklyn Heights Historic District, bounded by Atlantic Avenue, Court Street, Fulton Street, and the East River.

Brooklyn. *Plymouth Church of the Pilgrims, 75 Hicks Street.

Brooklyn. *Wyckoff (Pieter) House, 5902 Canarsis Lane.

Lewis County

Lowville. *Hough (Franklin B.) House, Collins Street.

Madison County

Cazenovia, Lorenzo, Ledyard Street (U.S. 20).

Oneida. *Oneida Community Mansion House, Sherrill Road.

Monroe County

Rochester. *Anthony (Susan B.) House, 17 Madison Street.

Rochester. Child, Jonathan, House and Brewster-Burke House Historic District, 37 South Washington Street and 130 Spring Street.

Rochester. *Eastman (George) House, 900 East Avenue.

Rochester. Ely, Harvey, House, 11 Livingston Park.

Rochester, First Universalist Church, southeast corner of South Clinton Avenue and Court Street.

Montgomery County

Amsterdam vicinity. *Erie Canal, 6 miles west of Amsterdam on New York 53.

Nassau County

Oyster Bay, Long Island, Sagamore Hill National Historic Site, end of Cove Neck Road.

Port Washington. *Souza (John Philip) House, Wildbank, 14 Hicks Lane, Sands Point.

New York County

- New York, *Arthur (Chester A.) House, 123 Lexington Avenue.
- New York, *Brooklyn Bridge, Boroughs of Manhattan and Brooklyn across the East River.
- New York, *Carnegie Hall, Seventh Avenue, 56th to 57th Streets.
- New York, *Carnegie (Andrew) Mansion, 2 East 91st Street.
- New York, Castle Clinton National Monument, South Ferry.
- New York, *Central Park, bounded by Central Park South, Fifth Avenue, Central Park West, and 110th Street.
- New York, Central Synagogue (Congregation Ahavath Chesed-Shaar Hashomayim), 648-652 Lexington Avenue.
- New York, *City Hall, Broadway and Chambers Street.
- New York, *Cooper Union, Cooper Square, Seventh Street and Fourth Avenue.
- New York, *Pupin Physics Laboratories, Columbia University, Broadway and 120th Street.
- New York, *Dyckman (William) House, 4581 Broadway.
- New York, Federal Hall National Memorial, Wall and Nassau Streets.
- New York, General Grant National Memorial, Riverside Drive and West 122d Street.
- New York, Hamilton Grange National Memorial, 267 Convent Avenue.
- New York, India House, 1 Hanover Square.
- New York, *Morgan (Pierpont) Library, 33 East 36th Street.
- New York, *Morris-Jumel Mansion, 160th Street and Edgecombe Avenue.
- New York, *New York Public Library, Fifth Avenue and 42nd Street.
- New York, New York Shakespeare Festival Public Theater (Astor Library), 425 Lafayette Street.
- New York City, 170-176 John Street Building, 170-176 John Street.
- New York, *The Players, 16 Gramercy Park.
- New York, *St. Paul's Chapel, Broadway between Fulton and Vesey Streets.
- New York City, Schermerhorn-Ross Block (New York State Maritime Museum Block), bounded by Front, Fulton, South Streets, and Burling Slip.
- New York, Statue of Liberty National Monument, Liberty Island, New York harbor (also in Hudson County, N.J.).
- New York, Theodore Roosevelt Birthplace National Historic Site, 28 East 20th Street.
- New York, *Tredwell (Seabury) House, Old Merchant's House, 29 East Fourth Street.
- New York, *Woolworth Building, 233 Broadway.

Niagara County

- Niagara Falls, *Niagara Reservation.
- Youngstown vicinity, *Old Fort Niagara, north of Youngstown on New York 18.

Oneida County

- Rome, Fort Stanwix National Monument, bounded by Dominick, Spring, Liberty, and James Streets.
- Rome vicinity, *Oriskany Battlefield, 5 miles east of Rome on New York 69.
- Utica, Utica State Hospital, 1213 Court Street.
- Westerville, *Floyd, General William, House, West side of Main Street.

Onondaga County

- Syracuse, Onondaga County Savings Bank Building (Gridley Building), 101 South Salina Street.
- Syracuse, Syracuse Savings Bank, 102 North Salina Street.
- Syracuse, Weighlock Building, southeast corner of Erie Boulevard and Montgomery Street.

Ontario County

- Geneva, Parrott Hall (Denton House), West North Street between Castle Street and Preemption Road.
- Victor vicinity, *Boughton Hill, 1.25 miles south of Victor.

Orange County

- *Delaware and Hudson Canal (also in Sullivan and Ulster counties and Pike and Wayne counties, Pa.).
- *Palisades Interstate Park (see Bergen County, N.Y.).
- Goshen, *Historic Truck, Main Street.
- Harriman, *Harriman (E.H.) Estate (Ardens), New York 17.
- Newburgh, Dutch Reformed Church, northeast corner of Grand and Third Streets.
- Newburgh, *Washington's Headquarters, Liberty and Washington Streets.
- West Point, *U.S. Military Academy, New York 218.

Oswego County

- Oswego, Oswego City Library, 120 East Second Street.

Otsego County

- Springfield, Hyde Hall, Glimmerglass State Park, east of County Route 31.

Queens County

- Flushing, *Old Quaker Meetinghouse, south side of Northern Boulevard.
- Richmond Hill, *Rits (Jacob) House, 84-41 120th Street.

Rensselaer County

- Rensselaer, *Fort Crailo, south of Columbia Street on Riverside Street.
- Troy, Cannon Building, 1 Broadway.
- Troy, Fifth Avenue-Fulton Street Historic District, two blocks of Fifth Avenue, on the eastern edge of the downtown Troy business district, bounded on the north by Grand Street, on the south by Broadway, on the east (between Grand and Fulton Streets) by Sixth Avenue and (between Fulton Street and Broadway) by Union Street, and on the west by Williams Street.
- Troy, Gasbolder House, Troy Gas Light Co., northwest corner of Jefferson Street and Fifth Avenue.
- Troy, Ilium Building, northeast corner of Fulton and Fourth Streets.
- Troy, McCarthy Building, 255-257 River Street.
- Troy, National State Bank Building, 297 River Street.
- Troy, W. & L. E. Gurley Co., 514 Fulton Street.
- Walworthmac vicinity, *Bennington Battlefield, New York 67, on Vermont line.

Richmond County

- Rosebank, Austen, Elizabeth Alice, House, 2 Hyland Boulevard.
- Staten Island, *The Voorlezer's House, Arthur Kill Road, opposite Center Street.
- Tottenville, Staten Island, *Conference House, Hylan Boulevard.

Rockland County

- *Palisades Interstate Park (see Bergen County, N.Y.).
- Stony Point vicinity, *Stony Point Battlefield, north of Stony Point on U.S. 9W and U.S. 202.
- Tappan, *De Wint House, Livingston Avenue and Oak Tree Road.

St. Lawrence County

- *Adirondack Forest Preserve (see Clinton County).

Saratoga County

- Albany vicinity, Saratoga National Historical Park, 30 miles north of Albany on U.S. 4 and New York 32.

- Ballston Spa, Old Saratoga County Court-house Complex, 46 West High Street.
- Mount McGregor, Grant Cottage, County Route 101 north of U.S. 9.

Schenectady County

- Delanson vicinity, Christmas Bird and Wildlife Sanctuary, southeast of Delanson on Schoharie Turnpike.

Schoharie County

- North of Blenheim, *Old Blenheim Bridge, New York 30.

Schuyler County

- Tyrone vicinity, *Lamoka, 2 miles west of Tyrone at northern edge of Lamoka Lake.

Seneca County

- Seneca Falls, *Stanota (Elizabeth Cady) House, 32 Washington Street.

Suffolk County

- Cutchogue, *The Old House, New York 25.
- East Hampton, Long Island, *Moran (Thomas) House, Main Street.
- Montauk vicinity, Montauk Point Light-house.
- Stony Brook, *Mount (William Sydney) House, Gould Road and New York 25.

Sullivan County

- *Delaware and Hudson Canal (see Orange County).

Tompkins County

- Ithaca, Boardman House, 120 East Buffalo Street.
- Ithaca, Clinton House, 116 North Cayuga Street.
- Ithaca, DeWitt Park Historic District, a square bounded roughly by properties fronting on East Buffalo, East Court, North Cayuga, and North Toga Streets.
- Ithaca, *Morrill Hall, Cornell University, Cornell University campus.
- Ithaca, Second Tompkins County Court-house, 121 East Court Street.

Ulster County

- *Delaware and Hudson Canal (see Orange County).
- Esopus, *Burroughs (John) Cabin (Slab-sides), west of West Park.
- Esopus, *Burroughs (John) Riverby Study, West Park.
- Hurley, *Hurley Historic District, Hurley Street, Hurley Mountain Road, and Schoonmaker Lane.
- Kingston, Clinton Avenue Historic District, includes all of Clinton Avenue between Westbrook Lane and North Front Street, North Front Street between Clinton Avenue and Fair Street, and the east side of Fair Street between North Front and John Streets.
- Kingston, Kingston City Hall, 408 Broadway.
- Kingston, Senate House, northwest side of Clinton Avenue near the intersection of North Front Street.
- New Paltz, *Hasbrouck (Jean) House, Huguenot Street, opposite its junction with North Street.
- New Paltz, *Huguenot Street Historic District, Huguenot Street.

Warren County

- *Adirondack Forest Preserve (see Clinton County).

Westchester County

- Croton-on-Hudson, *Van Cortlandt Manor, U.S. 9, north of intersection with U.S. 9A.
- Mount Vernon, St. Paul's Church National Historic Site, Eastchester, Mount Vernon.
- North Tarrytown, *Dutch Reformed (Sleepy Hollow) Church, north edge of Tarrytown on U.S. 9.

Tarrytown, *Gould (Jay) Estate (Lyndhurst), 635 South Broadway.
Tarrytown vicinity, *Irving (Washington) House (Sunnyvale), Sunnyside Lane.
Upper Mills, *Philipsburg Manor, 381 Bellwood Avenue.
Yonkers, *Philips Manor, Warburton Avenue and Dock Street.

NORTH CAROLINA

Alamance County

Alamance vicinity, Alamance Battleground State Historic Site, 4 miles south of Alamance on North Carolina 62.
Alamance vicinity, Allen (John) House, Alamance Battleground State Historic Site.
Burlington vicinity, Allen House, southwest of Burlington on Route 1, off North Carolina 62, near intersection with Route 1129.

Beaufort County

Bath, Bath Historic District, bounded on the west by Bath Creek, on the north by North Carolina 92, on the east by King Street, and on the south by Bath Creek.
Bath, Bonner House, Main and Front Streets.
Bath, *Palmer-Marsh House, 104 Main Street.
Bath, St. Thomas Episcopal Church, Craven Street.
Washington, Bank of Washington, West End Branch, 216 West Main Street.
Washington, Beaufort County Courthouse, corner of West Second and Market Streets.

Bertie County

Roxobel vicinity, Woodbourne, west of Roxobel on Route 1139.
Windsor vicinity, Hope Plantation, 4 miles northwest of Windsor off North Carolina 308.
Windsor vicinity, Jordan House, south of Windsor on North Carolina 1522.
Windsor vicinity, King House, northwest of Windsor on North Carolina 1116.

Brunswick County

Southport vicinity, Brunswick Historic District, bounded on the east by the Cape Fear River, on the south by County Route 1533, on the west by County Route 1529, and on the north by Orton Plantation.

Buncombe County

Asheville, *Biltmore Estate, Biltmore Plaza.

Burke County

Morganton, Burke County Courthouse, Courthouse Square, bounded on the northwest by Union Street, on the northeast by Sterling Street, on the southeast by Meeting Street, and on the southwest by Green Street.

Cabarrus County

Concord vicinity, *Reed Gold Mine, 11 miles southeast of Concord on North Carolina 601 and 200.

Caldwell County

Lenoir vicinity, Fort Defiance, north of Lenoir on North Carolina 268.

Carteret County

Atlantic Beach vicinity, Fort Macon, on Bogue Point, on Fort Macon Road 4 miles east of Atlantic Beach.

Catawba County

Claremont vicinity, Barker Hill Covered Bridge, 2 miles east of Claremont off U.S. 70.

Edenton, *Chowan County Courthouse, East King Street.

Edenton, *Cupola House, 408 South Broad Street.

Edenton, Irrell (James) House, 107 East Church Street.

Newton vicinity, St. Paul's Church and Cemetery (Lutheran), junction of North Carolina 1149 and North Carolina 1164.

Craven County

New Bern, Blades House, 602 Middle Street.

New Bern, Harvey Mansion, 219 Tryon Palace Drive.

New Bern, Stanly (John Wright) House, 307 George Street.

New Bern, Stevenson House, 609-611 Pollock Street.

Cumberland County

Fayetteville, Market House, Market Square.

Dare County

Kitty Hawk, Wright Brothers National Memorial.

Manteo vicinity, Roanoke Island, Fort Raleigh National Historic Site, 4 miles north of Manteo on U.S. 158.

Davidson County

Lexington, Old Davidson County Courthouse, Main and Center Streets.

Durham County

Durham vicinity, Bennett Place State Historic Site, intersection of State Routes 1313 and 1314.

Durham vicinity, *Duke Homestead and Tobacco Factory, 0.5 mile north of Durham on Guess Road and east on County Route 1025.

Edgecombe County

Battleboro, St. John's Episcopal Church, East Main Street.

Tarboro, The Barracks, 1100 Albermarle Street.

Tarboro, Blount House (The Grove), 130 Bridgers Street.

Tarboro, Calvary Episcopal Church and Churchyard, 411 East Church Street.

Tarboro, Cotton Press, Town Common, bounded by Wilson Street, Albermarle Avenue, Park Avenue, and St. Patrick Street.

Tarboro, Walston-Bulluck House (Fender Museum), 1018 St. Andrews Street.

Tarboro vicinity, Bracebridge Hall, near small crossroads of Mackfield.

Tarboro vicinity, Coolmore Plantation, west of Tarboro on U.S. 64.

Tarboro vicinity, Piney Prospect (Sugg House), 5.7 miles south of Tarboro off Route 1601.

Forsyth County

Winston-Salem, Bethabara Moravian Church, 2147 Bethabara Road.

Winston-Salem, *Old Salem Historic District, Salem College campus and area near Salem Square.

Winston-Salem, *Salem Tavern, 800 South Main Street.

Winston-Salem, *Single Brother's House, southwest corner of South Main and Academy Streets.

Guilford County

Greensboro, Elmswood, 411 West Washington Street.

Greensboro vicinity, Guilford Courthouse National Military Park, 6 miles northwest of Greensboro near U.S. 220.

High Point, Haley, John, House, 1805 East Lexington Avenue.

Halifax County

Halifax, Halifax Historic District, bounded on the southwest by St. David Street, on the northwest by the Owens House drainage ditch, on the northeast by the Roanoke River, and on the southeast by the Magazine Spring Gut.

Henderson County

Flat Rock vicinity, *Carl Sandburg Home National Historic Site, 0.25 mile west of Flat Rock.

Hertford County

Como vicinity, Hare Plantation House, 1.6 miles west of the junction of Route 1917 and U.S. 258.

Como vicinity, Riddick House, 1 mile south of the intersection of Routes 1319 and 1322.

Murfreesboro, The Columns, Jones Drive.

Murfreesboro, Freeman House (Hertford Academy), 200 East Broad Street.

Murfreesboro, Melrose, 100 East Broad Street.

Murfreesboro, Myrick House, 402 Broad Street.

Murfreesboro, Murfreesboro Historic District, bounded on the east by a line 60 feet east of Fourth Street; on the south by Vance Street extending beyond to a point 1,050 feet west of Liberty Street and 300 feet south of Main Street; on the west by a line 500 feet west of Windsor Street; and on the north by a line 120 feet north of Broad Street.

Murfreesboro, Rea, William, Store, East Williams Street.

Murfreesboro, Roberts-Vaughan House, 130 East Main Street.

Murfreesboro, Wheeler, John, House, 403 East Broad Street.

Irrell County

Statesville vicinity, Fort Dobbs, Fort Dobbs Road.

Johnston County

Clayton vicinity, Sanders-Hair House, Route 1525 south of Clayton.

Newton Grove vicinity, Bentonville Battleground State Historic Site, 2 miles north of Newton Grove on County Route 1008.

Newton Grove vicinity, Harper House, Bentonville Battleground State Historic Site.

Jones County

Pollockville vicinity, Foscoe Plantation House, east side of U.S. 17, 1.5 miles south of the junction of U.S. 17 and North Carolina 1002.

Pollockville vicinity, Sanderson House, southwest of Pollockville on North Carolina 1115.

Lenoir County

Falling Creek vicinity, Cedar Dell, southeast of Falling Creek on North Carolina 1338, 0.4 mile from the intersection with North Carolina 1324.

Falling Creek vicinity, Wood, Dempsey, House, southwest of Falling Creek on North Carolina 1324.

Kinston, Peebles House (Harmony Hall), 109 East King Street.

Kinston vicinity, Jackson, Jesse, House, on U.S. 11, south of Kinston.

McDonnell County

Pleasant Gardens, Carson House, east of Pleasant Gardens on U.S. 70.

Mecklenburg County

Charlotte, Alexander (Hezekiah) House, 3420 Shamrock Drive.

Montgomery County

Mount Gilead vicinity, *Town Creek Indian Mound, 4.5 miles southeast of Mount Gilead on North Carolina 73.

Moore County

Carthage vicinity, Alston House, 8 miles northeast of Carthage on County Route 1644.

Nash County

Rocky Mount vicinity, Stonewall, Falls Road Extension.

New Hanover County

Wilmington, City Hall-Thalian Hall, 100 North Third Street.
Wilmington vicinity, *Fort Fisher, 18 miles south of Wilmington on U.S. 421.

Orange County

Chapel Hill, Chapel Hill Historic District.
Chapel Hill, *Old East, University of North Carolina campus.
Chapel Hill, Playmakers Theatre (Smith Hall), Cameron Avenue, University of North Carolina.
Hillsborough, Agr Mount, St. Mary's Road.
Hillsborough, Burwell School, North Churton Street.
Hillsborough, Eagle Lodge, 142 West King Street.
Hillsborough, Hazel-Nash House, 116 West Queen Street.
Hillsborough, Nash Law Office, 143 West Margaret Lane.
Hillsborough, Old Orange County Courthouse, 106 East King Street.
Hillsborough, Ruffin-Roulhac House, northeast corner of Churton and Orange Streets.
Hillsborough, St. Matthew's Episcopal Church and Churchyard, St. Mary's Road.
Hillsborough, Sans Souci, East Corbin Street.

Pender County

Wilmington vicinity, Moores Creek National Military Park, 25 miles northwest of Wilmington on North Carolina 210.

Perquimans County

Hertford vicinity, Newbold-White House, southeast of Hertford off Route 1336 north of the junction with Route 1397.

Pitt County

Grimesland vicinity, Grimesland Plantation, east of Grimesland on Route 2.

Polk County

Tryon vicinity, Block House Site, 0.5 mile east of U.S. 176 on the boundary between North and South Carolina.

Richmond County

Hamlet, Seaboard Coast Line Passenger Depot, Main Street.
Rockingham, Great Falls Mill, West Washington and Broad Avenue.

Rockingham County

Wentworth, Wright Tavern, North Carolina 65.

Rowan County

Granite Quarry vicinity, Braun, Michael, House, northwest of Granite Quarry on North Carolina 2308, 0.5 mile from the junction of North Carolina 2308 and U.S. 52.
Salisbury, Community Building, Rowan County Courthouse, 200 North Main Street.

Union County

Monroe, Monroe City Hall, 102 West Jefferson Street.
Monroe, Union Courthouse, Courthouse Square.

Vance County

Williamsboro, St. John's Episcopal Church, Route 1329.
Williamsboro vicinity, Burnside Plantation House, on Route 1335 about 1.8 miles east of Williamsboro Crossroads.

Wake County

Raleigh, Christ Episcopal Church, 120 East Edenton Street.
Raleigh, Dodd-Hinsdale House, 330 Hillsborough Street.
Raleigh, Executive Mansion, 210 North Blount Street.

Raleigh, Federal Building (Raleigh Post Office and Courthouse), 300 Fayetteville Street.

Raleigh, Haywood Hall, 211 New Bern Avenue.

Raleigh, Haywood, Richard B., House, 127 East Edenton Street.

Raleigh, Lane, Joel, House, 728 West Hargett Street.

Raleigh, Mordecai House, Mimosa Street.

Raleigh, Raleigh Water Tower, 115 West Morgan Street.

Raleigh, St. Mary's Chapel, 900 Hillsborough Street.

Raleigh, Seaboard Coast Line Railroad Co. Office Building, 325 Halifax Street.

Raleigh, State Bank of North Carolina (Christ Church Rectory), 11 New Bern Avenue.

Raleigh, State Capitol Building, Capitol Square, bounded by Wilmington, Edenton, Salisbury, and Morgan Streets.

Raleigh, White-Holman House, 200 East Morgan Street.

Raleigh vicinity, Midway Plantation, 8 miles east of Raleigh on U.S. 64.

Raleigh vicinity, Yates Mill, Lake Wheeler Road.

Warren County

Vaughan vicinity, Buck Spring Plantation (Nathaniel Macon House), north of Vaughan on County Route 1348.

Washington County

Creswell vicinity, Somerset Place State Historic Site, 9 miles south of Creswell on Lake Phelps.

Wayne County

Fremont vicinity, Apocok (Charles B.) Birthplace, 1 mile south of Fremont off U.S. 117.

Wilkes County

Wilkesboro, Old Wilkes County Jail, North Bridge Street.

Yadkin County

Richmond Hill vicinity, Richmond Hill Law School, north of Richmond Hill on County Route 1630.

NORTH DAKOTA

Benson County

Fort Totten vicinity, Fort Totten, south of Fort Totten.

Billings County

Madora, Theodore Roosevelt National Memorial Park (also in McKenzie County).

Burleigh County

Menoken vicinity, *Menoken Indian Village Site, 1.25 miles north of Menoken, Verendrye State Park.

McKenzie County

Theodore Roosevelt National Memorial Park (see Billings County).

Mercer County

Stanton vicinity, *Big Hidatsa Village Site, north bank of Knife River, 1 mile north of Stanton.

Williams County

Buford vicinity, Fort Union Trading Post National Historic Site, west of Buford (also in Roosevelt County, Mont.).

OHIO

Adams County

Locust Grove vicinity, *Serpent Mound, 8 miles northwest of Locust Grove on Ohio 73.

Allen County

Spencerville vicinity, *Miami and Erie Canal, Deep Cut, 2 miles south of Spencerville on Ohio 66.

Athens County

Athens, *Manassah Cutler Hall, Ohio University, Ohio University campus.

The Plains, Hartman Mound (Connett Mound), Ohio 662, 0.1 mile west on small road.

Auglaize County

Wapakoneta vicinity, Fort Amanda Site, 9 miles northwest of Wapakoneta on Ohio 198.

Brown County

Fincastle vicinity, Eagle Township Works I Mound, southeast of Fincastle off Mound Road.

Ripley vicinity, Rankin, John, House, east of Ripley, Liberty Hill.

Butler County

Hamilton vicinity, Fairfield Township Works I, about 3.6 miles northeast of Hamilton between Ohio 4 and the Great Miami River.

Jacksonburg vicinity, Mann Mound (Leslie Mound), north of Jacksonburg off Gingrich Road.

Middletown vicinity, Great Mound, about 3.5 miles west of Middletown off Wayne-Nadison Road.

Oxford, Fisher Hall (Oxford Female College), Miami University campus.

Oxford, *McGuffey (William H.) House, 401 East Spring Street.

Pisgah vicinity, Union Township Works II, about 1 mile south of Pisgah.

Carroll County

Carrollton, McCook, Daniel, House, Public Square.

Carrollton vicinity, Petersburg Mill, 4.3 miles south of Carrollton on Ohio 322.

Columbiana County

East Liverpool, *The Beginning Point of the U.S. Public Land Survey, on the Ohio-Pennsylvania boundary (also in Beaver County, Pa.).

East Liverpool, East Liverpool Pottery, southwest corner of Second and Market Streets.

East Liverpool, Thompson, Cassius Clark, House, 305 Walnut Street.

Cuyahoga County

Valley View Village, *Ohio and Erie Canal, Ohio 631.

Derke County

Fort Jefferson, Fort Jefferson Site, Ohio 121.

Erie County

Milan, *Edison (Thomas Alva) Birthplace.

Fairfield County

Lancaster, *Sherman (John) Birthplace, 137 East Main Street.

Tarleton vicinity, Tarleton Cross Mound, 0.5 mile north of Tarleton on County Route 131.

Franklin County

Columbus, Campbell Mound, McKinley Avenue, 0.5 mile south of Trubus Road.

Columbus, Fort Hayes, Cleveland Avenue and Interstate 71.

Columbus, Hayes and Orion Halls, The Ohio State University, The Oval.

Westerville, Hanby House, 100 West Main Street.

Westerville, Towers Hall, Otterbein College, West Main and Grove Streets, Otterbein College campus.

Gallia County

Gallipolis, Our House, 494 First Avenue.

Greene County

Cedarville vicinity, Williamson Mound State Memorial, northwest of Cedarville near U.S. 42.

Fairborn vicinity, *Huffman Field*, Wright-Patterson Air Force Base, 1 mile southwest of Fairborn.

Guernsey County

Old Washington vicinity, **S Bridge, National Road*, 4 miles east of Old Washington on U.S. 40.

Hamilton County

Cincinnati, *Cincinnati Music Hall*, 1243 Elm Street.

Cincinnati, *Delta Queen* (steamerboat), Public Landing.

Cincinnati, *Langdon House*, 3620 Eastern Avenue.

Cincinnati, **Pendleton* (George Hunt) House, 589 East Liberty Street.

Cincinnati, *Piffen* (Benn) House, 1852 Columbia Parkway.

Cincinnati, *Stowe House*, 2950 Gilbert Avenue.

Cincinnati, **William Howard Taft National Historic Site*, 2038 Auburn Avenue.

Cincinnati, *Wesley Chapel Methodist Church*, 320 East Fifth Street.

Elizabethtown vicinity, *Fort Hill* (Fort Miami), approximately 3 miles south of Elizabethtown on Brower Road.

Montgomery, *Universalist Church Historic District*, Montgomery Road from 9433 north to Remington Avenue.

Mount Nebo, *William Henry Harrison Tomb*, Ohio 128.

Highland County

Hillsboro vicinity, *Fort Hill*, 18 miles southeast of Hillsboro on Ohio 41.

Pricetown vicinity, *Workman Works*, approximately 1.3 miles south of Pricetown.

Jackson County

Coalton vicinity, *Leo Petroglyph*, 4 miles northwest of Coalton off U.S. 35.

Jackson vicinity, *Buckeye Furnace*, 10 miles east of Jackson on Township Road 167, Milton Township.

Jefferson County

Mount Pleasant, *Friends Meetinghouse*, near Ohio 150.

Lake County

Fairport Harbor, *Fairport Marine Museum*, 129 Second Street.

Kirtland, *Kirtland Temple*, 9020 Chillicothe Road.

Mentor, **Garfield* (James A.) Home, *Lawnfield*, 1059 Mentor Avenue.

Licking County

Granville vicinity, *Alligator Effigy Mound*, east of Granville off Ohio 16.

Brownsville vicinity, *Flint Ridge*, 1.5 miles north of Brownsville on County Route 668.

Newark, **Newark Earthworks*, Mound Builders State Memorial.

Lorain County

Oberlin, **Oberlin College*, Tappan Square.

Lucas County

Maumee, *Hull-Wolcott House*, 1031 River Road.

Maumee vicinity, **Fallen Timbers Battlefield*, 2 miles west of Maumee on U.S. 24.

Medina County

Medina, *Medina County Courthouse*, Liberty Street and Broadway, Public Square.

Meigs County

Pomeroy vicinity, *Buffington Island*, 20 miles east of Pomeroy on Ohio 124, Lebanon Township.

Mercer County

Fort Recovery Site, *Fort Recovery* on Ohio 49.

Miami County

Lockington and vicinity, *Lockington Locks Historical Area*, T. 7 N., R. 6 E. of Washington Township (Shelby County); T. 6 N., R. 6 E. of Washington Township (Miami County).

Piqua vicinity, *Piqua Historical Area State Memorial* (John Johnston Farm and Indian Agency), 1 mile north of Piqua.

Montgomery County

Dayton, *Dunbar* (Paul Leiference) House, 219 North Summit Street.

Dayton, *Old Courthouse*, northwest corner of Third and Main Streets.

Germanatown, *Germanatown Covered Bridge*, Center Street, over Little Twin Creek.

Kettering, *Deeds Barn*, Prugh Park.

Miamisburg vicinity, *Miamisburg Mound*, south of Miamisburg on Mound Road.

Morgan County

Stockport vicinity, *Big Bottom*, 1 mile southeast of Stockport on Ohio 266.

Ottawa County

Gilbraltar Islands, **Cooke* (Jay) Home, Put-in-Bay, Lake Erie.

Marblehead, *Marblehead Lighthouse*, Ohio 163.

Put-in-Bay, South Bass Island, *Perry's Victory and International Peace Memorial National Monument*.

Perry County

Glenford vicinity, *Glenford Fort*, approximately 0.75 mile south of Glenford.

Pike County

Piketon, *Friendly Grove*, Ohio 220 east of Piketon.

Preble County

College Corner vicinity, *Husston Woods Park Mound*, northeast of College Corner near Little Four Mile Creek.

Eaton vicinity, *Fort St. Clair Site*, 1 mile west of Eaton.

Eaton vicinity, *Roberts Covered Bridge*, 3 miles south of Eaton.

Richland County

Mansfield, *Oak Hill Cottage*, 310 Springmill Street.

Ross County

Bainbridge vicinity, *Seip Earthworks* about 3 miles east of Bainbridge on U.S. 50.

Chillicothe vicinity, *Mound City Group National Monument*, 4 miles north of Chillicothe on Ohio 104.

Hopetown vicinity, **Hopeton Earthworks*, near Mound City Group National Monument on U.S. 23.

Soloto Township, *Adena*, Allen Avenue extended.

Sandusky County

Fremont, *Hayes* (Rutherford B.) Home (Spiegel Grove), Hayes and Buckland Avenues.

Shelby County

Lockington Locks Historical Area (see Miami County).

Stark County

Canton, *William McKinley Tomb*, Seventh Street NW.

Summit County

Akron, *Fort Island Works*, approximately 600 feet west of the west end of Fort Island Drive.

Tallmadge, *Tallmadge Town Square Historic District*, Public Square.

Trumbull County

Kinsman, *Congregational - Presbyterian Church*, near Ohio 5-7.

Kinsman, *Darrow*, Clarence, Octagon House, Ohio 5 and 7.

Kinsman vicinity, *Allen*, *Dr. Peter*, House, Kinsman, West Williamsfield State Road north of the intersection of Ohio 87.

North Bloomfield, *Brownwood*, Ohio 45.

Warren, *Mahoning Avenue Historic District*, 241-391 Mahoning Avenue NW.

Tuscarawas County

Bolivar vicinity, *Fort Laurens Site*, 0.5 mile south of Bolivar near Ohio 212.

Gadshuett vicinity, *Gadshuett Massacre Site*, 1 mile south of Gadshuett.

New Philadelphia, *Schoenbrunn Site*, U.S. 230.

Zoar, *Zoar Historic District*, bounded by Fifth Street on the north, Foltz Street on the east, First Street on the south, and by the rear property lines of those properties fronting on West Street on the west.

Warren County

Franklin vicinity, *Hill-Kinder Mound*, northeast of Franklin off Deardoff Road.

Lebanon, *Glendower*, U.S. 42.

Lebanon vicinity, **Fort Ancient*, 7 miles southeast of Lebanon on Ohio 350, Fort Ancient State Memorial.

Washington County

Marietta, *Ohio Company Land Office*, Campus Martius Museum, corner of Second and Washington Streets.

Marietta, *Putnam*, Rufus, House, Campus Martius Museum, corner of Second and Washington Streets.

Marietta, *W. F. Snyder, Jr.* (steamerboat), on the Muskingum River at Sacra Via.

Wyandot County

Upper Sandusky vicinity, *Indian Mill*, 3.5 miles northeast of Upper Sandusky on Crane Township Road.

Wood County

Perrysburg, *Old Wood County Jail*, 240 West Indiana Avenue.

Perrysburg vicinity, *Fort Meigs*, 1.3 miles southwest of Perrysburg.

OKLAHOMA

Alfalfa County

Cleo Springs vicinity, *Sod House*, about 4 miles north of Cleo Springs.

Blaine County

Canton vicinity, *Cantonment*, NW 1/4 sec. 29, T. 19 N., R. 13 W.

Geary vicinity, *Chisholm*, Jesse, Grave Site, 8 miles northeast of Geary via unnumbered county roads.

Bryan County

Kenefic vicinity, *Fort McCulloch*, approximately 2 miles southwest of Kenefic.

Nida vicinity, **Fort Washita*, southwest of Nida on Oklahoma 199.

Caddo County

Hinton vicinity, *Rock Mary*, c. 4 miles west of Hinton.

Canadian County

El Reno vicinity, *Fort Reno*, 3 miles west and 2 miles north of El Reno.

Cherokee County

Park Hill, Murrell Home (Hunter's Home), N½ sec. 22, T. 16 N., R. 22 E.
Tahlequah, *Cherokee National Capitol.

Choctaw County

Fort Towson vicinity, Fort Towson, 1 mile northeast of Fort Towson.
Swink vicinity, Chiefs House, 1.5 miles northeast of Swink.

Cimarron County

Wheeler vicinity, *Camp Nichols, 3 miles northeast of Wheeler on Ranch Road.

Comanche County

Cache vicinity, Quannah Parker's Star House, Eagle Park.
Lawton vicinity, *Fort Sill, north of Lawton.
Garvin County (also in Murray County)
Davis vicinity, Initial Point, about 7.5 miles west of Davis on Garvin-Murray County line.
Eria Springs, Eria Springs Mansion (Frank Murray Home), south of the Washita River.

Haskell County

Kinta vicinity, McCurtain, Green, House, NE¼NE¼ sec. 35, T. 8 N., R. 20 E.

Johnston County

Emet vicinity, White House of the Chickasaws, northwest of Emet.
Tahomango, Chickasaw National Capitals, Capitol Avenue, between Eighth and Ninth Streets.

Kay County

Newkirk vicinity, *Deer Creek Site, 6 miles northeast of Newkirk.

Kingfisher County

Kingfisher, Sany Mansion, corner of 11th Street and Zellers Avenue.

Le Flore County

Hodgens vicinity, Conser, Peter, House, 3.5 miles west of Hodgens.
Spiro vicinity, Spiro Mound Group, NE¼ sec. 29, W½ sec. 28, T. 10 N., R. 26 E.

Logan County

Guthrie, Carnegie Library, Oklahoma Avenue and Ash Street.

Love County

Marietta vicinity, Washington, Bill, Ranch House, about 4 miles southwest of Marietta.

McCurtain County

Millertown vicinity, *Wheelock Academy, east of Millertown on U.S. 70.

McIntosh County (also in Muskogee County)

Rentiesville vicinity, Honey Springs Battlefield, north of Rentiesville.

Mayes County

Mazie vicinity, Union Mission Site, about 5 miles northeast of Mazie.
Pensacola vicinity, Cabin Creek Battlefield, about 3 miles north of Pensacola near Cabin Creek.

Murray County

Initial Point (see Garvin County).

Muskogee County

Fort Gibson, *Fort Gibson.
Honey Springs Battlefield (see McIntosh County).
Muskogee vicinity, Fort Davis, 2.5 miles northeast of Muskogee.

Oklahoma County

Edmond, Old North Tower, 400 East Hurd Street, Central State College campus.

Jones vicinity, *Ringing the Wild Horse Site, W½ sec. 17 and E½ sec. 18, T. 13 N., R. 1 W.
Oklahoma City, Overholser House, 405 Northwest 15th Street.

Okmulgee County

Okmulgee, *Creek National Capitol.

Payne County

Stillwater, Old Central, Oklahoma State University, Oklahoma State University campus.
Yale, Thorpe, Jim, House, 704 East Boston Street.

Pushmataha County

Tuskahoma vicinity, Tuskahoma, Choctaw Council House, 2 miles north of Tuskahoma.

Roger Mills County

Cheyenne vicinity, *Washita Battlefield, northwest of Cheyenne on U.S. 283.

Rogers County

Oologah vicinity, Will Rogers Birthplace, about 4 miles northeast of Oologah.

Sequoyah County

Akins vicinity, *Sequoyah's Cabin, Oklahoma 101, Sequoyah's Cabin State Park.

Texas County

Optima vicinity, *Stamper Site, 2.5 miles south of Optima on the south bank of the North Canadian River.

Wagoner County

Tulahassee vicinity, Tulahassee Mission Site, northeast of Tulahassee.

Washita County

Colony, Seger Indian Training School (Colony School), east edge of Colony.
Colony vicinity, *McLemore Site, 4 miles southeast of Colony on Oklahoma 69.

OREGON

Baker County

Sumpter, Sumpter Valley Gold Dredge, southwest of town near Cracker Creek.

Benton County

Corvallis, Corvallis Arts Center (Episcopal Church of the Good Samaritan), 700 Southwest Madison Avenue.

Clackamas County

Oregon City, McLoughlin House National Historic Site, McLoughlin Park, between Seventh and Eighth Streets.

Clatsop County

Astoria, *Elmore (Samuel) Cannery, on the waterfront at the foot of Flavel Street.
Astoria, *Fort Astoria, 15th and Exchange Streets.
Astoria vicinity, Fort Clatsop National Memorial, 4.5 miles south of Astoria.
Hammond, Fort Stevens, Fort Stevens State Park.

Harney County

Burns vicinity, French Round Barn, Diamond Station.

Jackson County

Jacksonville, *Jacksonville Historic District.

Klamath County

Fort Klamath vicinity, Fort Klamath Site, approximately 1.25 miles southeast of Fort Klamath.
Worden, *Lower Klamath National Wildlife Refuge (see Shasta County, Calif.).

Lake County

Fort Rock vicinity, *Fort Rock Cave, SW¼ NW¼ sec. 25, T. 26 S., R. 18 E.

Multnomah County

Portland, Brown, Captain John A., House, 525 Northwest 19th Avenue.

Polk County

Williamina vicinity, Fort Yamhill Site, at the confluence of Cooper Creek and the South Fork of the Yamhill River.

Wasco County

The Dalles, Fort Dalles Surgeon's Quarters, 15th and Garrison Streets.

PENNSYLVANIA

Adams County

Gettysburg, Gettysburg National Military Park.
Gettysburg vicinity, Eisenhower National Historic Site, southwest edge of Gettysburg National Military Park.

Allegheny County

Natrona Heights vicinity, Old Burnier Stone House, Burnier Road, northwest of Natrona Heights.
Pittsburgh, Allegheny Post Office (Old North Post Office), Allegheny Center.
Pittsburgh, *Forks of the Ohio, Point Park.

Beaver County

Ambridge, *Old Economy, northwest of Pittsburgh on Pennsylvania 65.
Glasgow vicinity, *The Beginning Point of the U.S. Public Land Survey (see Columbiana County, Ohio).

Berks County

Morgantown vicinity, Hopewell Village National Historic Site, 10 miles northeast of Morgantown Interchange, Pennsylvania Turnpike.

Womelsdorf vicinity, *Weiser (Conrad) House, 2 miles east of Womelsdorf, U.S. 422.

Blair County

Altoona vicinity, *Horseshoe Curve, 5 miles west of Altoona on Pennsylvania 193.
Johnstown vicinity, Allegheny Portage Railroad National Historic Site, U.S. 22 (also in Cambria County).

Bucks County

Levittown, Femberton, Phineas, House (Bolton Mansion), Holly Drive.
Morrisville, *Summerseat (Thomas Barclay House), Clymer Street and Morris Avenue.
Morrisville vicinity, Pennsbury Manor, on Delaware River south of Bordentown Road.
New Hope vicinity, Honey Hollow Watershed, 2½ miles south of the Delaware River on Pennsylvania 263.

Philadelphia vicinity, *Biddle (Nicholas) Estate (Andalusia), 1.4 miles north of Philadelphia on Pennsylvania 32.

Yardley vicinity, *Washington Crossing State Park, between Yardley and New Hope, on the Delaware River (also in Mercer County, N.J.).

Cambria County

Allegheny Portage Railroad National Historic Site (see Blair County).
Johnstown vicinity, Johnstown Flood National Memorial, intersection of U.S. 219 and Pennsylvania 869.

Centre County

Curtin, Curtin Village (Eagle Ironworks), Route 14010.

Chester County

Birmingham, Birmingham Friends Meeting-house, 1245 Birmingham Road.
Chadds Ford vicinity, Oakdale, southwest of Chadds Ford on Hillendale Road.
Chadds Ford vicinity, Brinson's Mill, 1.5 miles north of Chadds Ford on U.S. 100.

Chadds Ford vicinity, *Harvey, William, House*, northwest of Chadds Ford on Brinton's Bridge Road just north of U.S. 1.
 Chester Springs vicinity, *Good News Buildings* (Yellow Springs Spa), north of Chester Springs on Art School Road.
 Hamorton vicinity, *Barnes-Brinton House*, east of Hamorton on U.S. 1.
 Marshallton, *Bradford Friends Meetinghouse*, east side of Northbrook Road.
 Marshallton, *Marshall, Humphry, House*, Strasburg Road (Pennsylvania 162) at the intersection of Northbrook Road.
 Mendenhall, *Peters, William, House*, Hillendale Road.
 Norristown vicinity, *Valley Forge, Valley Forge State Park* (also in Montgomery County).
 West Chester, *Strode's Mill* (Ettler's Mill), intersection of Pennsylvania 100-52 and County Route 15087.

Cumberland County

Carlisle, *"Carlisle Indian School*, east edge of Carlisle on U.S. 11.
 Carlisle, *"Old West, Dickinson College*, Dickinson College campus.

Delaware County

Broomall, *Massey, Thomas, House*, Lawrence Road, opposite Springhouse Road.
 Chadds Ford, *"Brandywine Battlefield*, Brandywine Battlefield Park.
 Chadds Ford, *Chadds Ford*, intersection of U.S. 1 and Pennsylvania Route 100.
 Chadds Ford, *Chadds House*, Pennsylvania 100.
 Chadds Ford, *Gilpin Homestead*, Harvey Road.
 Chadds Ford vicinity, *Painter, William, Farm*, 2 miles northeast of Chadds Ford on U.S. 1.
 Chester, Penn., *William, Landing Site*, Penn and Front Streets.
 Chester, *1724 Chester Courthouse*, Market Street below Fifth Street.
 Dilworthtown vicinity, *"Brinton (William) House*, 1704 House, Oakland Road near junction of U.S. 202 and County Route 15199.
 Essington, *"The Printzshof*, Taylor Avenue and Second Street.
 Haverford, *Federal School*, Haverford-Darby Road.
 Haverford, *Nitre Hall*, Karakung Drive.
 Media vicinity, *Old Rose Tree Tavern*, junction of Rose Tree and Providence Roads north of Media.
 Prospect Park, *Morton Homestead*, 100 Lincoln Avenue.
 Swarthmore, *"West (Benjamin) Birthplace*, Swarthmore College campus.
 Upland, *Pusey, Caleb, House*, 15 Race Street.
 Wallingford, *Leiper, Thomas, Estate*, Aron-dale Road.

Eric County

Erie, *Cashier's House*, 413 State Street.
 Erie, *Old Customhouse*, 409 State Street.

Fayette County

Mount Braddock vicinity, *Meason, Isaac, House* (Dr. Christopher Gist Plantation), U.S. 119 North.
 Point Marion vicinity, *"Gallatin (Albert) House*, Friendship Hill 3 miles north of Point Marion on Pennsylvania 166.
 Uniontown vicinity, *Fort Necessity National Battlefield*, 11 miles east of Uniontown on U.S. 40.
 Uniontown vicinity, *"Searights Tollhouse*, National Road, west of Uniontown near U.S. 40.

Franklin County

Chambersburg, *Brown (John) House*, 225 East King Street.
 Chambersburg, *Franklin County Jail*, northwest corner of King and Second Streets.
 Mercersburg, *Lane House*, 14 North Main Street.

Huntingdon County

Rockhill Furnace, *"East Broad Top Railroad*, U.S. 522.

Lackawanna County

Scranton, *"Powderly (Terence V.) House*, 614 North Main Street.

Lancaster County

Brickerville, *"Stiegel-Goleman House*, Pennsylvania 501 and U.S. 322.
 Ephrata, *"Ephrata Cloister*.
 Lancaster, *"Buchanan (James) House*, (Wheatland), 1120 Marietta Avenue.
 Lancaster, *Elliot, Andrew, House*, 123 North Prince Street.
 Lancaster, *Fulton Opera House*, 12-14 North Prince Street.
 Lancaster, *Herr, Hans, House*, 1851 Hans Herr Drive.
 Quarryville vicinity, *"Fulton (Robert) Birthplace*, 8 miles south of Quarryville on U.S. 22.

Lebanon County

Cornwall, *"Cornwall Iron Furnace*, 5 miles south of Lebanon on U.S. 322.

Lehigh County

Allentown, *Nonnemaker House* (Thomas Mewhorter House), 301 South Lehigh Street.
 Catasauqua, *"Taylor, George, House*, Front Street.

Luzerne County

Eckley, *Eckley Historic District*.
 Forty Fort, *Denison House*, 35 Denison Street.

Montgomery County

Collegeville vicinity, *Kuster Mill*, on Skip-pack Creek at Mill Road and Water Street Road.
 Conshohocken, *Mount Joy (Peter Legaux Mansion)*, North Lane and Hector Street.
 Evansburg vicinity, *Skippack Bridge*, east of Evansburg on Pennsylvania 422.
 Hornham vicinity, *"Graeme Park*, Keith Valley Road.
 Plymouth Meeting, *Hovenden House*, Barn, and Abolition Hall, No. 1 East Germantown Pike.
 Plymouth Meeting, *Plymouth Friends Meetinghouse*, corner of Germantown and Butler Pikes.
 Plymouth Meeting, *Plymouth Meeting Historic District*, contained within a rectangle having the following coordinates: On the northwest latitude 40°06'24" N., longitude 75°17'03" W.; on the northeast latitude 40°06'21" N., longitude 75°15'54" W.; on the southeast latitude 40°05'54" N., longitude 75°16'08" W.; on the southwest latitude 40°08'39" N., longitude 75°17'01" W.
 Trappe, *"Augusta Lutheran Church*, Seventh Avenue East and Main Street.
 Valley Forge (see Chester County).

Northumberland County

Northumberland, *"Priestley (Joseph) House*, Priestley Avenue.

Philadelphia County

Philadelphia, *"Academy of Music*, Broad and Locust Streets.
 Philadelphia, *"American Philosophical Society Hall*, Independence Square.
 Philadelphia, *Arch Street Meetinghouse*, 320-338 Arch Street.
 Philadelphia, *Arch Street Presbyterian Church*, 1720-1732 Arch Street.
 Philadelphia, *"Bartram (John) House*, 54th Street and Eastwick Avenue.
 Philadelphia, *Beggarstown School*, 6669 Germantown Avenue.
 Philadelphia, *Billmeyer, Daniel, House*, 6504 Germantown Avenue.
 Philadelphia, *Billmeyer, Michael, House*, 6505-6507 Germantown Avenue.

Philadelphia, *"Carpenters' Hall*, 320 Chestnut Street.

Philadelphia, *Cathedral of Sts. Peter and Paul*, 18th Street and the Parkway.
 Philadelphia, *Centennial National Bank*, 3200 Market Street.
 Philadelphia, *"Chew House*, Germantown Avenue between Johnson and Cliveden Streets.
 Philadelphia, *"Christ Church*, Second Street between Market and Filbert Streets.
 Philadelphia, *"Coleman (William) House*, (Woodford), East Fairmount Park.
 Philadelphia, *Conyngham-Backer House*, 5214 Germantown Avenue.
 Philadelphia, *Deshler-Morris House*, 5442 Germantown Avenue.
 Philadelphia, *Drinkers' Court*, 236-238 Delancey Street.
 Philadelphia, *"Eakins (Thomas) House*, 1729 Mount Vernon Place.
 Philadelphia, *"Eastern State Penitentiary*, 21st Street and Fairmount Avenue.
 Philadelphia, *"Elfreth's Alley Historic District*, between Second and Front Streets.
 Philadelphia, *First Unitarian Church*, 2121 Chestnut Street.
 Philadelphia, *Forrest, Edwin, House*, 1326 North Broad Street.
 Philadelphia, *"Fort Mifflin*, Marina and Penrose Ferry Roads.
 Philadelphia, *Fort Mifflin Hospital*, Marina and Penrose Ferry Roads.
 Philadelphia, *"Founder's Hall*, Girard College, Corinthian and Girard Avenues.
 Philadelphia, *Free Quaker Meetinghouse*, southwest corner of Fifth and Arch Streets.
 Philadelphia, *Germantown Academy and Headmasters' Houses*, Schoolhouse Lane and Greene Street.
 Philadelphia, *Germantown Historic District*, Germantown Avenue, between Wind-rim Avenue and Upal Street.
 Philadelphia, *Gloria Dei (Old Swedes) Church*, National Historic Site, Swanson Street, between Christian and Water Streets.
 Philadelphia, *"Hamilton (William) House*, The Woodlands, 40th Street and Woodland Avenue west.
 Philadelphia, *Hill-Physick House*, 321 South Fourth Street.
 Philadelphia, *Hovell House*, 5216 Germantown Avenue.
 Philadelphia, *Independence National Historical Park*, bounded by Walnut, Sixth, Chestnut, and Second Streets.
 Philadelphia, *"Institute of the Pennsylvania Hospital*, 111 North 4th Street.
 Philadelphia, *Johnson House*, 6306 Germantown Avenue.
 Philadelphia, *Kosciuszko House*, 301 Pine Street.
 Philadelphia, *"Logan (James) Home*, Stenton, 18th and Courtland Streets.
 Philadelphia, *"MacPherson (John) House*, (Mount Pleasant), Fairmount Park.
 Philadelphia, *Masonic Temple*, 1 North Broad Street.
 Philadelphia, *Marxwell, Ebenezer, House*, 200 West Tulpenhook Street.
 Philadelphia, *Mikveh Israel Cemetery*, northwest corner of Spruce and Darien Streets.
 Philadelphia, *Musie Fund Hall*, 808 Locust Street.
 Philadelphia, *"New Market*, South Second Street between Pine and Lombard Streets.
 Philadelphia, *"U.S.S. Olympia*, Pier 40, at the foot of Chestnut Street.
 Philadelphia, *"Peale (Charles Willson) House*, (Belfield), 2100 Clarkson Avenue.
 Philadelphia, *Pennsylvania Academy of the Fine Arts*, southwest corner of Broad and Cherry Streets.
 Philadelphia, *"The Pennsylvania Hospital*, Eighth and Spruce Streets.
 Philadelphia, *Philadelphia College of Art* (Asylum for the Deaf and Dumb), northwest corner of Broad and Pine Streets.

Philadelphia, Philadelphia Contributionship, 312 South Fourth Street.
Philadelphia, "Poe (Edgar Allan), House, 530 North Seventh Street.
Philadelphia, "Reynolds-Morris House, 225 South Eighth Street.
Philadelphia, St. Clement's Protestant Episcopal Church, southwest corner of 20th and Cherry Streets.
Philadelphia, St. George's Methodist Church, 324 New Street.

Philadelphia, Society Hill Historic District, bounded on the north by Walnut Street (both sides), on the south by Lombard Street, on the east by the pier line of the Delaware River, and on the west by Eighth Street (both sides).
Philadelphia, "Sully (Thomas) Residence, 530 Spruce Street.
Philadelphia, Twelfth Street Meetinghouse, 20 South 12th Street.
Philadelphia, Upsale, 6430 Germantown Avenue.
Philadelphia, "Walnut Street Theatre, Ninth and Walnut Streets.
Philadelphia, Wenamaker, John, House, 2032 Walnut Street.
Philadelphia, Wyck House, 6026 Germantown Avenue.

Pike County

*Delaware and Hudson Canal (see Orange County, N.Y.).
Milford, "Pinchot (Gifford) House, Grey Towers, west edge of Milford.

Venango County

Titusville vicinity, "Drake Oil Well, 3 miles southeast of Titusville on Pennsylvania 36, Drake Well Memorial Park.

Wayne County

*Delaware and Hudson Canal (see Orange County, N.Y.).

Westmoreland County

Harrison City vicinity, "Bushy Run Battlefield, 2 miles east of Harrison City on Pennsylvania 993.

York County

York, Billmeyer House, East Market Street.
York, Gates, Horatio, House and Golden Plough Tavern, 157-159 West Market Street.

PUERTO RICO

San Juan

*La Fortaleza, San Juan Island, between San Juan Bay and Calle Recinto Oeste, San Juan National Historic Site.

RHODE ISLAND

Bristol County

Bristol, Bristol County Courthouse, High Street.
Bristol, Church, Benjamin, House, 1014 Hope Street.
Warren, Warren United Methodist Church (First Methodist Church), 27 Church Street.

Kent County

Anthony, Greene, General Nathaniel, Homestead, 40 Taft Street.
East Greenwich, Army of the Kentish Guards, Armory and Pelce Streets.
East Greenwich, Kent County Courthouse, 127 Main Street.
East Greenwich, Varnum, General James Mitchell, House, 57 Pelce Street.
East Greenwich, Witmarsh, Colonel Micah, House (John Reynolds House), 294 Main Street.
Warwick, Arnold, John W., House, 11 Roger Williams Avenue.
Warwick, Rhodes, Christopher, House, 25 Post Road.

Newport County

Middletown, Whitehall, Berkeley Avenue.
Newport, Baldwin, Charles H., House, Bellevue Avenue opposite Perry Street.
Newport, Bell, Isaac, House, 70 Perry Street.
Newport, The Breakers, Ochre Point Avenue.
Newport, "Brick Market, Thames Street and Washington Square.
Newport, Chateau-sur-Mer, Bellevue, Leroy, Lawrence, and Shepard Avenues.
Newport, Clark, Sherman, House, 279 Thames Street.
Newport, Clarke Street Meetinghouse (Second and Congregational Church), Clarke Street.
Newport, Cotton, Dr. Charles, House, 5 Cotton's Court.
Newport, The Elms, Bellevue Avenue.
Newport, Fort Adams State Park, Harrison Avenue.
Newport, Gale, Levi H., House, 89 Touro Street.
Newport, Griswold, John, House, 76 Bellevue Avenue.
Newport, "Hunter House, 54 Washington Street.
Newport, Industrial National Bank, 303 Thames Street.
Newport, King, Edward, House, Aquidneck Park, Spring Street.
Newport, Lucas-Johnston House, 40 Division Street.

Newport, Marble House, Bellevue Avenue.
Newport, Miantonomi Memorial Park, bounded on the south by Admiral Kalbuss Road, on the west by Girard Avenue, on the north by property of the Newport Housing Authority, and on the east by Hillside Avenue.
Newport, Newport Casino, 194 Bellevue Avenue.
Newport, "Newport Historic District, near but not including the waterfront area, within the 18th-century town limits.
Newport, Old Colony House (Old Statehouse), Washington Square.
Newport, Perry Hill, 387 Thames Street.
Newport, "Redwood Library, 50 Bellevue Avenue.
Newport, "Sherman, William Waits, House, 2 Shepard Avenue.
Newport, Shiloh Church (Trinity Schoolhouse), 25 School Street.
Newport, Stevens, Robert, House, 261-265 Thames Street.

Newport, "Touro Synagogue National Historic Site, 85 Touro Street.
Newport, "Trinity Church, 141 Church Street.
Newport, United Congregational Church, Spring and Pelham Streets.
Newport, "U.S. Naval War College, Coaster's Harbor Island.
Newport, "Vernon House, 44 Clarke Street.
Newport, "Wanton-Lyman-Hazard House, 17 Broadway.
Newport, Whitehorse, Samuel, House, 414 Thames Street.

Providence County

Chepachet, Chepachet Village Historic District, along both sides of Rhode Island 102-U.S. 44 north from the intersection of U.S. 44 and Rhode Island 102 and 102-U.S. 44; included are properties on both sides of Dorr Drive, Douglas Hook Road, Point Lane, and Old Mine Lane.
Cranston, Joy Homestead, 186 Scituate Avenue.
Cranston, Sprague, Governor William, Mansion, 1351 Cranston Street.
Glocester, Gloucester Town Pound, Pound Road.
Lincoln, "Arnold (Eleanor) House, Great Road (Rhode Island 123).
Lincoln, Arnold, Israel, House, Great Road.
Lincoln, Blackstone Canal (Paul Ronci Memorial Park), from Front Street north to Ashton Dam.

Pawtucket, "Old Slater Mill, Roosevelt Avenue.
Pawtucket, Trinity Church, 50 Main Street.
Providence, The Arcade, 130 Westminster Street and 65 Weybosset Street.
Providence, Beneficent Congregational Church, 300 Weybosset Street.
Providence, Brackett (Charles) House, 45 Prospect Street.
Providence, "Brown (John) House, 52 Power Street.
Providence, College Hill Historic District, bounded on the north by Olney Street, on the south by Cohan Boulevard, on the east by Hope Street, and on the west by the Providence and Moshassuck rivers.
Providence, Congdon Street Baptist Church, 17 Congdon Street.
Providence, "Corliss-Carrington House, 66 William Street.
Providence, Desier, Edward, House, 72 Waterman Street.
Providence, Elizabeth Building, 100 North Main Street.
Providence, "First Baptist Meetinghouse, North Main Street between Thomas and Waterman Streets.
Providence, Hopkins (Governor Stephen) House, 18 Hopkins Street.
Providence, "Ives, Thomas P., House, 66 Power Street.
Providence, Martin Hall, Eaton Street.
Providence, Moshassuck Square (American Screw Co. Factories), Stevens Street.
Providence, Pawtucket, Central Falls, Lincoln vicinity, Blackstone Canal, extending from Front Street Bridge, Lincoln, to Steeple and Promenade Streets.
Providence, Roger Williams National Memorial, Old Town.
Providence, Russell, Joseph and William, House, 118 North Main Street.
Providence, Sixth District Courthouse, 150 Benefit Street.
Providence, State Arsenal, 176 Benefit Street.
Providence, State House, 90 Smith Street.
Providence, "University Hall, Brown University, Brown University campus.
Providence, Woods-Gerry House, 63 Prospect Street.

Washington County

Charlestown, Fort Ninigret, Fort Neck Road.
Charlestown, Indian Burial Ground, Narrow Lane.
Narragansett, The Towers, Ocean Road.
Saunderstown, "Stuart (Gilbert) Birthplace, Gilbert Stuart Road.
Westerly, U.S. Post Office, High and Broad Streets.
Wickford (North Kingstown), Shaw, Dr. William G., House, 41 Brown Street.

SOUTH CAROLINA

Abbeville County

Abbeville, Abbeville Opera House, Court Square.
Abbeville, Surt (Armistead) House, 305 North Main Street.
Abbeville, Trinity Episcopal Church and Cemetery, Church Street.

Anderson County

Anderson, Anderson Historic District, 14 blocks in the city of Anderson, bounded by Hampton, Main, Franklin, McDuffie, Benson, and Fant Streets.
Anderson, Johnson-Morris Cottage, 230 East Morris Street.
Pendleton, Pendleton Historic District, the district is enclosed by a rectangle, the co-ordinates of which are on the northwest corner latitude 34°40' N., longitude 82°50'34.5" W.; on the northeast corner latitude 34°40' N., longitude 82°45'54" W.; on the southeast corner latitude 34°38'15" N., longitude 82°45'54" W.; and on the southwest latitude 34°38'15" N., longitude 82°50'34.5" W.

Pendleton vicinity, Woodburn, end of Woodburn Road, 1.5 miles west of Pendleton.

Bemberg County

Ehrhardt vicinity, *Rivers Bridge State Park*, 8 miles southwest of Ehrhardt via U.S. 601 and South Carolina 641.

Beaufort County

Beaufort, *The Anchorage*, 1103 Bay Street.
Beaufort, *Barnwell*, William House, 300 Prince Street.

Beaufort, *Beaufort Historic District*, bounded on the north by Boundary Street, on the west by Hamar and Bladen Streets, and on the south and east by the Beaufort River.
Beaufort, *Tubby Menze (Thomas Fuller House)*, 1211 Bay Street.

Beaufort, *Verdier*, John Mark, House, 801 Bay Street.

Beaufort vicinity, *Hunting Island State Park Lighthouse*, 17 miles south-southeast of Beaufort via U.S. 21.

Charleston, Edisto Island vicinity, *The Presbyterian Menze*, northwest of Edisto Island via South Carolina 174 and unnumbered road.

Edisto Island vicinity, *Trinity Episcopal Church*, about 1.2 miles north of Edisto Island on South Carolina 174.

Gardens Corner vicinity, *Sheldon Church Ruins*, northwest of Gardens Corner on U.S. 21.

Hiltonhead vicinity, *Skull Creek (Hilton Head)*, north of Hiltonhead off Hickory Reef-Mount Calvary Church Road.

Laurel Bay vicinity, *Chesler Field Site*, south of Laurel Bay on Port Royal Island.

Berkeley County

Goose Creek, **St. James' Goose Creek*.
Huger, **Pompton Hill Chapel*, 3 mile southwest of the intersection of South Carolina 41 and 402.

Huger vicinity, **Middleburg Plantation*, c. 2 miles southwest of Huger, on the East Branch of the Cooper River.

Moncks Corner vicinity, **Mulberry*, off U.S. 52 on the Cooper River.

Mount Holly vicinity, *Medway*, 2.1 miles east of Mount Holly.

St. Stephens, **St. Stephen's Episcopal Church*, on South Carolina 45.

Charleston County

Awendaw vicinity, *Sevee Mound (The Old Fort)*, 2.6 miles south of Awendaw.

Charleston, **Aiken (William) House and Associated Railroad Structures*, 456 King Street.

Charleston, *Blake Tenements*, 2-4 Court-house Square.

Charleston, *Brantford-Horry House*, 59 Meeting Street.

Charleston, **Breunton (Miles) House*, 27 King Street.

Charleston, **Breunton (Robert) House*, 71 Church Street.

Charleston, **Charleston Historic District (extended)*, the total area corresponds to the Old and Historic District delineated in the zoning ordinance of the city of Charleston, ratified on August 16, 1966.

Charleston, *Citizens and Southern National Bank of South Carolina*, 50 Broad Street.

Charleston, *The Exchange and Provost*, East Bay and Broad Streets.

Charleston, *Fireproof Building*, 100 Meeting Street.

Charleston, *Fort Sumter National Monument*, Charleston harbor.

Charleston, **Gibbes (William) House*, 64 South Battery.

Charleston, **Hayward-Washington House*, 87 Church Street.

Charleston, **Mills (Clark) Studio*, 51 Broad Street.

Charleston, *Powder Magazine*, 79 Cumberland Street.

Charleston, *Rose, Thomas, House*, 57-59 Church Street.

Charleston, *Russell, Nathaniel, House*, 51 Meeting Street.

Charleston, **St. Michael's Episcopal Church*, 80 Meeting Street.

Charleston, *Simmons-Edwards House*, 12-14 Legare Street.

Charleston, *Site of Old Charles Towne*, Albee Point.

Charleston, *South Carolina State Arsenal (Old Citadel)*, 2 Tobacco Street (Marion Square).

Charleston, *Stuart, Colonel John, House*, 104-106 Tradd Street.

Charleston, *Sword Gates House*, 32 Legare Street, 111 Tradd Street.

Charleston harbor, *Castle Pinckney*, on Shute's Folly Island.

Charleston vicinity, **Drayton (John) House*, Drayton Hall, 12 miles west of Charleston off South Carolina 61.

Edisto Island, **Brick House Ruin*.

Edisto Island vicinity, *Edisto Island Presbyterian Church*, 1.9 miles north of Edisto Island on South Carolina 174.

Edisto Island vicinity, *Old House Plantation*, northeast of Edisto Island via South Carolina 174, County Route 788, and unnumbered road.

Edisto Island vicinity, *Middleton's Plantation*, 3.5 miles north of Edisto Island, then south 2 miles via unnumbered road.

Edisto Island vicinity, *Seabrook, William, House*, north of Edisto Island via South Carolina 174 and County Routes 963 and 768.

Georgetown vicinity, **St. James' Church*, 17 miles south of Georgetown, near the Santee River.

McClanahan vicinity, **Hampton Plantation*, 8 miles north of McClanahan.

Mount Pleasant, *Old Courthouse*, 311 King Street.

Mount Pleasant vicinity, *Auld Mound*, northeast of Mount Pleasant, 1.2 miles southeast of U.S. 17.

Mount Pleasant vicinity, *Bussard's Island Site*, northeast of Mount Pleasant, 1.3 miles south of U.S. 17.

Rockville vicinity, *Fig Island Site*, 2 miles southwest of Rockville on Edisto Island on the north bank of Ocella Creek.

Rockville vicinity, *Hanckel Mound*, 2 miles northwest of Rockville on Wadmalaw Island.

Rockville vicinity, *Horse Island*, 1 mile south of Rockville on Seabrook Island.

Cherokee County

Chesnee vicinity, *Coupons National Battlefield Site*, 2 miles east of Chesnee at junction of South Carolina 11 and South Carolina 110.

Chester County

Chester vicinity, *Catholic Presbyterian Church*, 14 miles southeast of Chester on South Carolina 97 and County Route 355.

Chester vicinity, *Lewis Inn*, 6.5 miles northeast of Chester on South Carolina 72, then 0.9 mi. west on South Carolina 909.

Richburg vicinity, *Elliot House*, 0.3 mile north of Richburg on South Carolina 901, then 1 mile on County Route 150.

Rowell, *Landsford Canal*, off U.S. 21, a 2-mile section parallel to the Catawba River.

Chesterfield County

Cheraw, *St. David's Episcopal Church and Cemetery*, Church Street.

Clarendon County

Summerton vicinity, *Santee Indian Mound*, south of Summerton off U.S. 301.

Colleton County

Jacksonboro vicinity, *Pon Pon Chapel*, on Parker's Ferry Road, 1 mile from South Carolina 64.

Walterboro, *Colleton County Courthouse*, corner of Hampton and Jeffries Streets.

Walterboro, *Old Colleton County Jail*, Jeffries Boulevard.

Walterboro, *Walterboro Library Society Building*, 801 Wichman Street.

Darlington County

Hartsville vicinity, **Coker Experimental Farms*, west of Hartsville on South Carolina 151.

Hartsville vicinity, *Kelley, Jacob, House*, 3 miles west of Hartsville, Route 2, South Carolina 8-16-12.

Dillon County

Dillon, *Dillon, James W., House*, 1302 West Main Street.

Dorchester County

Summerville vicinity, *Middleton Place*, 10 miles southeast of Summerville on South Carolina 61.

Summerville vicinity, *Old Dorchester*, Dorchester State Park, including the ruins of the village and fort of Dorchester and St. George's Church, on the Ashley River near the mouth of Dorchester Creek.

Edgefield County

Edgefield vicinity, *Blocker House*, about 6 miles northwest of Edgefield on U.S. 25.

Edgefield vicinity, *Cedar Grove*, 5 miles northwest of Edgefield on U.S. 25.

Edgefield vicinity, *Horn Creek Baptist Church*, south of Edgefield via Routes 34, 133, and a dirt road.

North Augusta vicinity, *Big Stevens Creek Baptist Church*, about 8 miles northwest of North Augusta on South Carolina 230.

Fairfield County

Jenkinsville vicinity, *Ebenezer Associate Reformed Presbyterian Church (Old Brick Church)*, 4.3 miles north of Jenkinsville on South Carolina 213.

Monticello vicinity, *Davis Plantation*, 0.25 mile south of Monticello on South Carolina 215.

Ridgeway, *Century House (Brick House)*, South Carolina 34, 1 block west of Main Street.

Ridgeway vicinity, *St. Stephen's Episcopal Church*, about 1 mile northeast of Ridgeway on County Route 106.

Ridgeway vicinity, *Valencia*, about 2 miles northwest of Ridgeway on County Route 106.

Winnabow, *Ketchin Building*, 231 South Congress Street.

Winnabow, *Winnabow Historic District*, bounded on the west by Garden Street, on the south by Buchanan Street, Fairfield Country Club, and Moultrie Street; on the east by Congress Street, Zion Street, Walnut Street, and Gooding Street; and on the north by a line running from Roosevelt Street to Woodland Terrace.

Georgetown County

Georgetown, *City of Georgetown Historic District*, the Old City of Georgetown, bounded on the south by the Sampit River, on the west by Wood Street; on the north by U.S. 17; and on the east by Meeting Street.

Georgetown, *Georgetown County Rice Museum*, Old Market Building, Front and Screven Streets.

Georgetown, *Prince George Winyah Church (Episcopal) and Cemetery*, corner of Broad and Highmarket Streets.

Georgetown vicinity, Hopsewee (Thomas Lynch House), 12 miles south of Georgetown on U.S. 17.

Greenville County

Greenville, Christ Church (Episcopal) and Chapelard, 10 North Church Street.
Greenville, Earle Town House, 107 James Street.
Greenville, Greenville City Hall, Northwest corner of Main and Broad Streets.
Greenville, Whitehall, 310 West Earle Street.
Tigerville vicinity, Pointsett Bridge, about 4 miles north of Tigerville on County Route 42.

Greenwood County

Oakesburg and vicinity, Old Cokesbury Historic District and Masonic Female College Conference School, bounded on the northeast by South Carolina 398; on the southeast by a straight line intersecting South Carolina 97 at the junction of South Carolina 254; on the south by South Carolina 97; bounded on the southwest by South Carolina 163 and a straight line running northwest to South Carolina 185; on the northwest by South Carolina 180; and on the north by a straight line running east from the intersection of South Carolina 180 and S. 178 to the intersection of South Carolina 95 and 898.
Ninety Six vicinity, Old Ninety Six and Star Fort, 2 miles south of Ninety Six between South Carolina 248 and 27.

Horry County

Conway, Old Horry County Courthouse and Jail, Main Street.

Jasper County

Gillisonville, Gillisonville Baptist Church, U.S. 278.

Kershaw County

Camden, City of Camden Historic District, bounded on the south by the city limits, on the east and west by the Southern Railroad right-of-way, and on the north by Dickey Creek Road.

Camden, Fort Camden, southern area of Camden, De Kalb Township.

Camden vicinity, Adamson Mounds Site, c. 2 miles west of Camden, along the left bank of Mound Creek.

Camden vicinity, *Camden Battlefield, 5 miles north of Camden on U.S. 521 and 601.
Camden vicinity, McDowell Site (Chesnut Mounds), 2.5 miles south of Camden, surrounding the mouth of Big Pine Tree Creek on the Wateree River.

Lancaster County

Lancaster, Lancaster County Courthouse, 104 North Main Street.

Lancaster, Lancaster County Jail, 208 West Gay Street.

Lexington County

Lexington, Fox House (Classical and Theological Seminary of the Evangelical Lutheran Synod of South Carolina and Adjacent States), 232 Fox Street.

Marlboro County

Wallace vicinity, Pegues Place, 6 miles north of Wallace, just off U.S. 1 on County Route 268.

McCormick County

Willington vicinity, De La Howe State School, 3 miles southeast of Willington on South Carolina 81.

Newberry County

Newberry, Newberry Opera House, Boyce and Nance Streets.
Newberry, Old Courthouse, Newberry, 1207 Caldwell Street.

Oconee County

Walhalla vicinity, Oconee Station and Richards House, 11 miles north of Walhalla via South Carolina 111 and County Route 95.
Walhalla vicinity, Stumphouse Tunnel Complex, 5 miles north of Walhalla via South Carolina 28 and Route 226.
Westminster vicinity, Prather's Bridge, over Tugaloo River, 10 miles southwest of Westminster via U.S. 124, then 1 mile northwest on County Route 68, then 0.25 mile west on County Route 160.

Orangeburg County

Eutawville vicinity, Eutaw Springs Battleground Park, 2 miles east of Eutawville on South Carolina 6 and 45.

Pickens County

Clemson, *Calhoun (John C.) House, Fort Hill, Clemson University campus.
Clemson, St. Julien-Ravenel House (Hannover House), Clemson University campus.
Pendleton vicinity, Old Stone Church and Cemetery, off U.S. 76, 1.5 miles north of Pendleton at the intersection of County Route 37.

Richland County

Columbia, Arsenal Hill (Palmetto Ironworks and Armory), 1800 Lincoln Street.
Columbia, Caldwell-Hampton-Boylston House, 829 Richland Street, 1718 Hampton Street.

Columbia, Columbia Historic District I, bounded on the south by Laurel Street; on the west by a line midway between Gadsden and Wayne Streets and a line midway between Gadsden and Lincoln Streets; on the north by the line two-thirds of the distance north of Calhoun Street between Calhoun and Elmwood Avenue; and on the east by a line midway between Assembly and Park Streets and by Park Street.
Columbia, Columbia Historic District II, bounded on the south by Taylor Street and a line midway between Taylor and Blandling Streets; on the west by a line between Marion and Sumter Streets; on the north by Richland Street and a line between Richland and Calhoun Streets; and on the east by Bull Street, then through the block between Barnwell and Henderson, by Pickens, and by Henderson.

Columbia, First Baptist Church, 1306 Hampton Street.

Columbia, First Presbyterian Church, 1324 Marion Street.

Columbia, Hall, Ainsley House, 1616 Blandling Street.

Columbia, Hampton-Preston House, 1615 Blandling Street.

Columbia, Horry-Guignard House, 1527 Senate Street.

Columbia, The Lace House, 803 Richland Street.

Columbia, Mills Building, South Carolina State Hospital, 2100 Bull Street.

Columbia, Old Campus District, University of South Carolina, bounded on the west by Sumter Street, on the south, east, and north by buildings not included in the old campus quadrangle.

Columbia, Piericorn House (Hale-Elmore-Seibels House), 1601 Richland Street.

Columbia, South Carolina Governor's Mansion, 800 Richland Street.

Columbia, South Carolina Statehouse, bounded on the north by Main Street, on the west by Assembly Street, on the south by Senate Street, and on the east by Sumter Street.

Columbia, Trinity Episcopal Church, 1100 Sumter Street.

Columbia, Washington Street United Methodist Church, 1401 Washington Street.

Columbia vicinity, Millwood, Garner's Ferry Road.
Eastover vicinity, Kensington Plantation House, 8 miles east of Eastover near Farm Road 764.

Spartanburg County

Glenn Springs vicinity, Camp Hill (Smith House), 2 miles south of Glenn Springs on South Carolina 215.

Moore vicinity, Price's Post Office, junction of County Routes 88, 199, and 200.

Spartanburg, Evans-Bivings House (Dr. James Bivings House), 563 North Church Street.

Spartanburg, Foster's Tavern, 191 Cedar Spring Road.

Spartanburg, Seay, Jammie, House, Darby Road off Crescent Avenue, within the city limits.

Spartanburg vicinity, Walnut Grove Plantation, 8 miles southeast of Spartanburg, c. 1 mile east of the intersection of U.S. 221 and Interstate 26.

Sumter County

Pinewood vicinity, Milford Plantation, 2 miles west of Pinewood on South Carolina 261.

Sumter vicinity, Stateburg Historic District, within a rectangle bounded by the following coordinates: On the northwest, latitude 33°39'37.6" N, longitude 82°32'30" W; on the northeast, latitude 33°59'37.8" N, longitude 82°29'21.4" W; on the southeast, latitude 33°56'42.9" N, longitude 82°29'21.4" W; and on the southwest, latitude 33°56'42.9" N, longitude 82°32'30" W.

Union County

Cross Keys vicinity, Padgett's Creek Baptist Church, 2 miles east of Cross Keys.

Union, Herndon Terrace, North Pinckney Street at the corner of Catherine Street.

Union vicinity, Cross Keys House, 12 miles southwest of Union on South Carolina 49.

Union vicinity, Pinckneyville, 13 miles northeast of Union on South Carolina 13.

Union vicinity, Rose Hill, 9 miles southwest of Union on County Route 16.

Williamsburg County

Kingstree, Thorn tree (Witherspoon House), Flinn-Nelson Memorial Park.

York County

Bethany vicinity, Kings Mountain National Military Park, northwest of Bethany on South Carolina 161.

McConnellsville vicinity, Brattonville Historic District, east of McConnellsville on County Route 165, 2 miles south of the intersection with South Carolina 322.

Rock Hill, The White House, 258 East White Street.

SOUTH DAKOTA

Buffalo County

Chamberlain vicinity, *Crow Creek Site, 15 miles north of Chamberlain on the east side of the Missouri River near South Dakota 47.

Fort Thompson vicinity, *Fort Thompson Mounds, near Fort Thompson on South Dakota 50, Crow Creek Indian Reservation.

Davidson County

Mitchell, *Mitchell Site, municipal golf course.

Dewey County

Mobridge vicinity, *Molstad Village, 18 miles south of Mobridge, overlooking the Oahe Reservoir.

Hanson County

Bloom vicinity, *Bloom Site, east of Bloom on the James River.

Hughes County

Pierre vicinity, *Archer Site, 7.5 miles east of Pierre on the Missouri River.

Lawrence County

Deadwood, *Deadwood Historic District.

Lincoln County

*Blood Run Site (see Lyon County, Iowa).

Lyon County

Lower Brule vicinity, *Langdeau Site, north of Lower Brule on South Dakota 47W.

Pennington County

Keystone vicinity, Mount Rushmore National Memorial, 3 miles west of Keystone off U.S. 16A.

Shannon County

Batesland vicinity, *Wounded Knee Battlefield, 11 miles west of Batesland, Pine Ridge Indian Reservation.

TENNESSEE

Anderson County

Oak Ridge, *X-10 Reactor, Oak Ridge National Laboratory.

Carter County

Elizabethton vicinity, *Sycamore Shoals, 2 miles west of Elizabethton on the Watauga River.

Cheatham County

Kingston Springs vicinity, Mound Bottom, east of Kingston Springs on Route 2.
Kingston Springs vicinity, *Narrowes of the Harpeth, north of Kingston Springs on Route 2.

Claiborne County

Cumberland Gap National Historical Park (see Bell County, Ky.).

Davidson County

Hermitege, Tullis Grove, Lebanon Road.
Nashville, Belair, 2250 Lebanon Road.
Nashville, Belmont, Belmont Boulevard.
Nashville, First Presbyterian Church (Downtown Presbyterian Church), 154 Fifth Avenue North.
Nashville, Jubilee Hall, Fisk University, 17th Avenue North.
Nashville, Nashville Children's Museum (Lindsey Hall, University of Nashville), 724 Second Avenue South.
Nashville, Nashville Union Station, Broadway and 10th Avenue South.
Nashville, *Peabody College for Teachers, 21st Avenue South and Edgemoor Avenue.
Nashville, Ryman Auditorium (Grand Old Opry House), 116 Opry Place.
Nashville, St. Mary's Catholic Church, 330 Fifth Avenue North.
Nashville, Tennessee State Capitol, Capitol Hill.
Nashville, Traveller's Rest, Franklin Road.
Nashville vicinity, Belle Meade, Harding Road at Lenox Avenue.
Nashville vicinity, *The Hermitage, 12 miles east of Nashville on U.S. 70N.
Old Hickory, Cleveland Hall, 4041 Old Hickory Boulevard.

Greene County

Greeneville, Andrew Johnson National Historic Site, Depot and College Streets.

Hamilton County

Chattanooga, Brown's Ferry Tavern, Brown's Ferry Road.

Chattanooga, Chattanooga Union Station, West Ninth and Broad Streets.

Chickamauga and Chattanooga National Military Park (see Catoosa County, Ga.).

Hardin County

Shiloh, Shiloh National Military Park.

Hickman County

Nunnally vicinity, Pinewood, approximately 3 miles north of Nunnally on Pinewood Road (Route 3).

Knox County

Knoxville, *Blount (William) Mansion, 200 West Hill Avenue.

Knoxville, Marble Springs, Neubert Springs Road.

Knoxville vicinity, Ramsey House, Thorngrove Pike.

Loudon County

Greenback, National Campground, Route 1.

Loudon, Carmichael Inn, off U.S. 11.

Loudon vicinity, Bowman House, east of Loudon on Little River Road.

Loudon vicinity, Cannon-Calloway House, west of Loudon off U.S. 11.

Madison County

Pinson vicinity, *Pinson Mounds, 3 miles east of Pinson on secondary road.

Maury County

Columbia, Mayes-Hutton House, 306 West Sixth Street.

Columbia, *Polk (James K.) House, West Seventh and South High Streets.

Columbia vicinity, Beechclaw, south of Columbia on U.S. 31.

Columbia vicinity, Clifton Place, southwest of Columbia on Mount Pleasant Highway.

Columbia vicinity, St. John's Episcopal Church, 6 miles west of Columbia.

Monroe County

Vonore vicinity, *Fort Loudoun, U.S. 411.

Montgomery County

Clarksville, Emerald Hill (Eagle's Nest), North Second Street.

Clarksville, Sevier Station, west side of Walker Street, 216 feet south of B Street.

Roane County

Harriman, Harriman City Hall, Roane Street and Walden.

Kingston, Roane County Courthouse, Kentucky Avenue.

Robertson County

Cedar Hill vicinity, Wessington, about 3 miles south of Cedar Hill, near Oalebs Creek.

Rutherford County

Murfreesboro, Oaklands, North Maney Avenue.

Murfreesboro vicinity, Stones River National Battlefield, 3 miles northwest of Murfreesboro on U.S. 41.

Smyrna, Davis (Sam) Home, Tennessee 102.

Sevier County

Sevierville, Buckingham House, Sevierville Pike.

Sevierville, Sevier County Courthouse, Court Avenue.

Shelby County

Memphis, *Beale Street Historic District, Beale Street from Main to Fourth Streets.

Memphis, First Baptist Church, 379 Beale Avenue.

Memphis, Hunt-Phelan Home, 533 Beale Avenue.

Memphis, The Lee and Fontaine Houses of the James Lee Memorial, 680-690 Adams Avenue.

Memphis, Randolph House, 546 Beale Street.

Memphis, Tri-State Bank, 390 Beale Street.

Stewart County

Dover vicinity, Fort Donelson National Military Park, 1 mile west of Dover on U.S. 79.

Sullivan County

Kingsport, Netherland Inn and Complex, 2144 Netherland Inn Road.

Kingsport, The Preston Farm, 4612 Orebank Road.

Kingsport vicinity, *Long Island of the Holston, south fork of the Holston River.

Piney Plate vicinity, Rocky Mount, southwest of Piney Plate off County Route 11E.

Sumner County

Castalian Springs, Castalian Springs (Bledsoe's Lick), Gallatin-Hartsville Pike (Tennessee 26).

Gallatin vicinity, Cragfont, about 5 miles west of Gallatin off Tennessee 25.

Hendersonville vicinity, Rock Castle, southeast of Hendersonville on Indian Lake Road.

Washington County

Johnson City vicinity, Tipton-Haynes House, southeast of Johnson City on U.S. 19W.

Jonesboro, Jonesboro Historic District, bounded roughly by College Street, Babine Avenue, and properties fronting on Main Street on the north; by Franklin Avenue and Depot Street on the south; by Second Avenue, Oak Grove Avenue, and private property on the west; and by private property on the east.

Jonesboro vicinity, Taylor, Christopher, House, southwest of Jonesboro off Old U.S. 11-E.

Williamson County

Franklin, Rainey-Laurence House, 244 First Avenue South.

Franklin vicinity, *Franklin Battlefield, south of Franklin on U.S. 31.

TEXAS

Armstrong County

Palo Duro vicinity, *JA Ranch, Palo Duro Canyon.

Aransas County

Rockport, Mathis, Thomas H. House, 612 Church Street.

Bastrop County

Bastrop, Allen-Bell House, 1408 Church Street.

Hills Prairie vicinity, Hill, Abraham Wiley, House, 5 miles southwest of Hills Prairie.

Bezar County

San Antonio, *The Alamo, Alamo Plaza.

San Antonio, Edward H. White II Museum (Hangar Nine), Brooks Air Force Base.

San Antonio, *Espada Aqueduct, Espada Road, just east of U.S. 281S.

San Antonio, *Mission Concepcion, 807 Mission Road.

San Antonio, San Jose Mission National Historic Site, 6519 San Jose Drive.

San Antonio, *Spanish Governor's Palace, 105 Military Plaza.

San Antonio, U.S. San Antonio Arsenal, bounded by South Flores Street on the west, East Arsenal Street on the south, the San Antonio River on the east, and private property on the north.

San Antonio, Ursuline Academy, 300 Augusta Street.

Blanco County

Blanco, Edwards-Conn House, at the intersection of U.S. 281 and the southwest boundary of the courthouse square.

Johnson City vicinity, *Lyndon B. Johnson National Historic Site (also in Gillespie County).

Bowie County

Texarkana, Offenhaus Insurance Building, State Line Avenue and Third Street.

Cameron County

- Brownsville, *Fort Brown.
Brownsville, *Resaca de la Palma Battlefield, north edge of Brownsville on Parades Line Road.
Brownsville vicinity, *Palo Alto Battlefield, junction of Farm Roads 1847 and 511, 6.3 miles north of Brownsville.
Port Isabel vicinity, Brazos Santiago Depot, off Port Isabel, north end of Brazos Island.

Chambers County

- Cove vicinity, Site 41 CH 110, east of Cove and north of U.S. 10.
Wallisville vicinity, Orcoquisac Archeological District, north of Wallisville on Lake Miller.

Cherokee County

- Alto vicinity, George C. Davis Site, about 6 miles southwest of Alto on Texas 21.

Comal County

- New Braunfels, First Protestant Church (United Church of Christ), 296 South Sequin Street.
New Braunfels, Klein, Stephen, House, 131 South Sequin Street.
New Braunfels, Lindheimer House, 489 Comal Avenue.

Crocket County

- Sheffield vicinity, Fort Lancaster, 10 miles east of Sheffield on U.S. 290.

De Witt County

- Cuero, De Witt County Courthouse, bounded by North Gonzales, East Live Oak, North Clinton, and East Courthouse Streets.

El Paso County

- El Paso, Chamizal National Memorial.
El Paso, Magoffin Homestead, 1120 Magoffin Avenue.
El Paso vicinity, Huco Tanks, 22 miles northeast of El Paso off U.S. 62.

Fayette County

- Winedale, Winedale Inn Complex, off FM 1457.

Fisher County

- Noodle vicinity, Foy Steadman Site, 8.5 miles northwest of Noodle.

Galveston County

- Galveston, Ashbel Smith Building, 914-916 Avenue B (Strand Avenue).
Galveston, Bishop's Palace (Gresham House), 1402 Avenue J (Broadway).
Galveston, El Mina Shrine Temple, 2328 Broadway.
Galveston, Sealy (Gebrge) House, 2424 Broadway.
Galveston, The Strand Historic District, bounded on the north by Avenue A, on the east by 20th Street, on the south by an alley separating Avenues C and D, and on the west by the railroad passenger depot extending north to Avenue A (including lots 5, 6, and 7 of block 685 between Avenue A and New Strand Street).
Galveston, Trueheart-Adrian Building, 212 22d Street.
Galveston, Williams, Samuel May, House, 3001 Avenue P.
Galveston, U.S. Customhouse (Old Galveston Customhouse), southeast corner of 20th and Post Office (Avenue E) Streets.

Gillespie County

- Fredericksburg, Fredericksburg Historic District, bounded by a line running southeast six blocks from the corner of Acorn and Schubert along Schubert to Adams; northeast one block on Adams to Travis; southeast on Travis one block to Llano; southwest on Llano two blocks to Austin; southeast on Austin three blocks to Elk; southwest two blocks on Elk to San Antonio; northwest on San Antonio three blocks to Llano; southwest one block on Llano to Barons Creek; northwest along the creek one block behind Creek Street to Adams; southwest one-half block on Adams to the rear property line of lots facing Creek Street; then northwest six blocks to Acorn; northeast four and one-half blocks to the corner of Acorn and Schubert.

- Fredericksburg, Fredericksburg Memorial Library, Courthouse Square.
*Lyndon B. Johnson National Historic Site (See Blanco County).

Goliad County

- Goliad vicinity, *Presidio Nuestra Señora de Loreto de la Bahia, 1 mile south of Goliad State Park on U.S. 183.

Gonzales County

- Gonzales, Kennard House, 621 St. Louis Street.
Gonzales vicinity, Braches Home, 12 miles southeast of Gonzales on U.S. 90 Alternate.

Guadalupe County

- Seguin, Erskine House No. 1 (Holloman House), 902 North Austin Street.
Seguin, Sebastopol (Zorn House), northeast corner of West Court and North Erkel Streets.

Hale County

- Plainview, *Plainview Site, 0.5 mile west of the junction of U.S. 70 and 87.

Harris County

- Houston, 1884 Houston Cotton Exchange Building, 202 Travis Street.
Houston vicinity, *San Jacinto Battlefield, 22 miles east of Houston on Texas 134.

Hill County

- Hillsboro, Hill County Courthouse, Court-house Square.

Houston County

- Crocket, Monroe-Crook House, 707 East Houston Street.
Kennard vicinity, Western Mound, 5.8 miles southeast of Kennard.

Jack County

- Jacksboro vicinity, *Fort Richardson, south of Jacksboro on U.S. 281.

Jeff Davis County

- Fort Davis, Fort Davis National Historic Site, junction of Texas 17 and 118.

Jefferson County

- Beaumont, French Home Trading Post, 2095 French Road.
Beaumont, McFadden House Complex, 1906 McFadden.
Beaumont vicinity, *Lucas Gusher, Spindletop Oil Field, 3 miles south of Beaumont on Spindletop Avenue.

Kaufman County

- Terrell vicinity, *Porter (Walter C.) Farm, 2 miles north of Terrell on Farm Road 986.

Kendall County

- Kingsville vicinity, *King Ranch, in and near Kingsville (also in Kleberg, Nueces, and Willacy counties).

Kleberg County

- *King Ranch (see Kennedy County).

Lamar County

- Paris, Maze, Samuel Bell, House, 812 East Church Street.

Lampasas County

- Lampasas, Lampasas County Courthouse, bounded by South Live Oak, East Fourth, South Pecan, and East Third Streets.

Lavaca County

- Hallettsville, Lavaca County Courthouse, bounded by La Grange, Second, Third, and Main Streets.
Hallettsville, Lay-Boska House, 205 Fairwinds.

Lee County

- Giddings, Schubert House, 183 Hempstead Street.

Liberty County

- Dayton vicinity, Site 41 LB 4, 12 miles southeast of Dayton.

Lubbock County

- Lubbock vicinity, Lubbock Lake Site, north of Lubbock near the intersection of Clovis Highway and Loop 289.

McLennan County

- Waco, Earle-Napier-Kinnard House, 814 South Fourth Street.
Waco, Fort House, 503 East Fourth Street.
Waco, Waco Suspension Bridge, across the Brazos River at Bridge Street.

Marion County

- Jefferson, Alley-Carlson House, 501 Walker Street.

- Jefferson, Beard House, 212 North Vale Street.
Jefferson, Epperson-McNutt House, 409 South Alley Street.

- Jefferson, Excelsior Hotel, Austin Street between Market and Vale Streets.
Jefferson, Freeman Plantation House, 0.8 mile west of Jefferson on Route 49.

- Jefferson, Jefferson Historic District, bounded roughly by Owens, Priou, Taylor, Lafayette, Market, Camp, Walnut extended, Folk, Vale, and Line Streets; and by a line parallel to and between Dixon and Walker Streets, and by a line north of and parallel to Dixon Street.

- Jefferson, Jefferson Playhouse, northwest corner of Market and Henderson Streets.
Jefferson, The Magnolias, 209 East Broadway.
Jefferson, Old U.S. Post Office and Courts Building, 223 Austin Street.

- Jefferson, Perry, Captain William, House, northwest corner of Walnut and Clarksville Streets.

- Jefferson, Planters Bank Building, 224 East Austin Street.

- Jefferson, Presbyterian Manse, northeast corner of Alley and Delta Streets.

- Jefferson, Sedberry House, 211 North Market Street.

- Jefferson, Singleton, Captain William E., House, 204 North Soda Street.

- Jefferson, Woods, Perry House (Old Ligon Place), 502 Walker Street.

Maverick County

- Eagle Pass, Fort Duncan, bounded on the east by Monroe, on the north by Garrison, on the south by the city limits, and on the west by the Rio Grande.

Medina County

Castroville, *Castroville Historic District*, bounded on the northwest by a line 45° north-northeast through the center of the Medina River and intersecting Texas 471; on the southwest by Constantino Street to Houston Street, by Naples Street from Houston to Florence Streets, by Constantino Street from Florence to Gentile Streets, and by Gime Street to the river; bounded on the southeast by a line 45° north-northeast through the center of the river to Texas 471; and on the northeast by Texas 471.

Castroville, *Landmark Inn Complex*, Florella and Florence Streets.

Menard County

Fort McKavett, *Fort McKavett Historic District*, south bank of the San Saba River.

Nacogdoches County

Nacogdoches, *Old Nacogdoches University Building*, Washington Square.

Nueces County

*King Ranch (see Kenedy County).

Oldham County

Vega vicinity, *Landergerin Mesa*, east side of East Alamosa Creek, Mansfield Ranch.

Parker County

Weatherford, *Parker County Courthouse*, Courthouse Square.

Potter County

Fritch vicinity, *Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument*, southwest of Fritch on the Canadian River.

Real County

Camp Wood, *Mission San Lorenzo de la Santa Cruz*, on the west side of Texas 55 at the north edge of the city.

Robertson County

Calvert, *Hammond House*, bounded by Burnett, China, Elm, and Hanna Streets.

San Augustine County

San Augustine, *Cartwright, Mathew, House*, 912 East Main Street.
San Augustine, *Oullen, Ezekiel, House*, 207 South Congress.

San Patricio County

San Patricio vicinity, *McGloin, James, Homestead*, 1 mile northwest of San Patricio on FM 666.

Shackelford County

Albany vicinity, *Fort Griffin*, 15 miles north of Albany on U.S. 263.

Shelby County

Center, *Shelby County Courthouse*, Courthouse Square.

Smith County

Teaselsville vicinity, *Deusberry, Colonel John House*, 1 mile North of Teaselsville on FM 346.

Tarrant County

Fort Worth, *Flatiron Building*, 1000 Houston Street.

Fort Worth, *Gulf, Colorado & Santa Fe Railroad Passenger Station*, 1601 Jones Street.
Fort Worth, *Knights of Pythias Building*, 315 Main Street.

Fort Worth, *Tarrant County Courthouse*, bounded by Houston, Belknap, Weatherford, and Commerce Streets.

Tom Green County

San Angelo, **Fort Concho*, south edge of San Angelo.

Travis County

Austin, *Barker History Center (Old Library)*, University of Texas, South Mall, University of Texas campus.

Austin, *Brewster Block Historic District*, a block bounded on the southeast by West Eighth Street, on the northeast by Guadalupe Street, on the southwest by West Seventh Street, and on the northwest by San Antonio Street; also the west side of San Antonio Street between West Seventh and West Eighth Streets and the south side of West Seventh Street from No. 315 to No. 610 Guadalupe Street.

Austin, *Carrington-Covert House*, 1511 Colorado Street.

Austin, *Drishill Hotel*, 117 East 7th Street.

Austin, *French Legation*, 802 San Marcos.

Austin, *Gethsemane Lutheran Church*, 1510 Congress Avenue.

Austin, *Littlefield House*, 24th Street and Whitis Avenue.

Austin, *Neill-Cochran House*, 2810 San Gabriel.

Austin, *The Old Bakery*, 1006 Congress Avenue.

Austin, *Old Land Office Building*, 108 East 11th Street.

Austin, *Texas State Capitol*, Congress and 11th Streets.

Austin, *Texas Governor's Mansion*, 1010 Colorado Street.

Austin, *U.S. Post Office (Old Post Office) and Federal Building (O. Henry Hall)*, 128 West 6th Street.

Austin, *Woodlawn (Pease Mansion)*, 6 Miles Road.

Austin vicinity, *Levi Rock Shelter*, on Lick Creek west of Texas 71, about 27 miles west of Austin.

Val Verde County

Comstock vicinity, *Lower Pecos Canyon Archeological District*, 12 miles west of Comstock on U.S. 90.

Comstock vicinity, *Seminole Canyon Archeological District*, 7 miles west of Comstock, south of U.S. 90.

Langtry vicinity, *Mule Canyon (Eagle Nest Canyon)*, northeast of Langtry on U.S. 90.

Langtry vicinity, *Rattlesnake Canyon Site*, about 4 miles southwest of Langtry.

Victoria County

Inez vicinity, *Fort St. Louis Site*, about 13 miles south of Inez on Garitas Creek.

Waller County

Hempstead vicinity, *Liendo*, 3 miles northeast of Hempstead off FM 1498.

Washington County

Brenham, *Fawcett-Day House*, 409 West Alamo Street.

Brenham vicinity, *Hatfield Plantation*, northwest of Brenham off Farm-to-Market 912.

Gay Hill vicinity, *The Red House*, northwest of Gay Hill via Texas 36 and Farm-to-Market 260.

Independence, *Houston, Mrs. Sam, Home*, FM 350, one block east of the intersection with FM 50.

Willacy County

*King Ranch (see Kenedy County).

Williamson County

Georgetown, *Tinnes House*, 1220 Austin Street.

Old Round Rock, *Inn at Brushy Creek (Cole House)*, Taylor exit of U.S. 79, off Interstate Highway 35, west side.

Round Rock vicinity, *Merrell, Captain Nelson, House*, northeast of Round Rock on U.S. 79.

Wise County

Decatur, *Administration Building*, Decatur Baptist College, 1602 South Trinity Street.

Young County

Newcastle vicinity, **Fort Belknap*, 1 mile south of junction of Texas 24 and 251.
South Bend, **Harrell Site*, 1 mile north of South Bend on the Brazos River.

UTAH

Beaver County

Beaver, *Beaver County Courthouse*, 90 East Center Street.

Box Elder County

Brigham City, *Box Elder Stake Tabernacle*, Main Street between Second and Third South Streets.

Collinston vicinity, *Hampton's Ford Stage Stop and Barn*, northwest of Collinston on Utah 154 at the Bear River.

Corinne, *Corinne Methodist Episcopal Church*, corner of Colorado and South Sixth Street.

Promontory, *Golden Spike National Historic Site*.

Carbon County

Green River, **Desolation Canyon* (also in Emery, Grand, and Utah counties).

Emery County

*Desolation Canyon (see Carbon County).

Grand County

*Desolation Canyon (see Carbon County).

Iron County

Cedar City vicinity, *Old Ironstones*, about 22 miles west of Cedar City, 3 miles south of Utah 56.

Millard County

Cove Fort vicinity, *Cove Fort*, 2 miles east of Interstate 15 on Utah 4.

Deseret vicinity, *Fort Deseret*, 2 miles south of Deseret on Utah 257.

Pillmore, *Utah Territorial Capitol*, Center Street between Main and First West Streets.

Piute County

Junction, *Piute County Courthouse*, Main Street at Center Street.

Salt Lake County

Salt Lake City, *Bechies House*, 67 East South Temple Street.

Salt Lake City, *Cathedral of the Madeleine (Roman Catholic)*, 331 East South Temple Street.

Salt Lake City, *Chase, Isaac, Mill*, Liberty Park, Sixth Street East.

Salt Lake City, *The Council Hall (Old City Hall)*, Capitol Hill, head of State Street.

Salt Lake City, *Devereaux House (Staines-Jennings Mansion)*, 334 West South Temple Street.

Salt Lake City, **Emigration Canyon*, east edge of Salt Lake City, Utah 85.

Salt Lake City, *Fort Douglas*, Fort Douglas Military Reservation.

Salt Lake City, *Granite Paper Mill*, 6000 Big Cottonwood Canyon Road.

Salt Lake City, *Keith-Brown Mansion and Carriage House*, 529 East South Temple Street.

Salt Lake City, *Ottlinger Hall*, 233 Canyon Road.

Salt Lake City, *St. Mark's Episcopal Cathedral*, 231 East First South Street.

Salt Lake City, *Salt Lake City and County Building*, 451 Washington Square.

Salt Lake City, **Temple Square*.

Salt Lake City, *Utah State Historical Society Mansion and Carriage House*, 603 East South Temple Street.

Salt Lake City, *Young, Brigham, Forest Farmhouse*, 732 Ashton Avenue.

Salt Lake City, **Young (Brigham) House*, Lion House, 63 South Temple Street.

Salt Lake City, Z.C.M.I. East Iron Front (Zions Cooperative Mercantile Institute), 15 South Main Street.
Salt Lake City vicinity, *Bingham Canyon Open Pit Copper Mine, 16 miles southwest of Salt Lake City on Utah 48.
Salt Lake City vicinity, Little Dell Station, west of Salt Lake City in Mountain Dell Canyon, near the intersection of Utah 239 and 65.

San Juan County

Blanding vicinity, Edge of the Cedars Indian Ruins, 0.25 mile west of Fourth North and Fourth West Streets.
Bluff vicinity, Hovenweep National Monument (see Montezuma County, Colo.).
Monticello vicinity, *Alkali Ridge, 25 miles southeast of Monticello on secondary road, 10 miles east from Recapture Creek on Utah 47.

Sanpete County

Manti, Manti Temple, U.S. 89, north edge of town.

Summit County

Park City vicinity, Kimball Stage Stop, NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 1 S., R. 4 E.

Tooele County

Isopha, Isopha Settlement Cemetery, Skull Valley (NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T. 3 S., R. 5 W.).
Wendover vicinity, *Danger Cave, 1 mile east of Wendover on U.S. 40.

Uintah County

*Desolation Canyon (see Carbon County).

Utah County

Fairfield, Stagecoach Inn.

Wasatch County

Heber City, Wasatch Stake Tabernacle and *Heber Amusement Hall, Main Street at 100 North Street and 100 West Street corners.
Midway, Watkins-Coleman House, 5 East Main Street.

Washington County

Pine Valley, Pine Valley Chapel and Tithing Office, Main and Grass Valley Streets.
St. George, Old Washington County Courthouse, 85 East 100 North.
St. George, St. George Tabernacle, intersection of Tabernacle and Main Streets.
St. George, Young, Brigham, Winter Home and Office, corner of Second North and First West Streets.
Santa Clara, Hamblin, Jacob, House.
Silver Reef, Wells Fargo and Company Express Building, Main Street.
Washington, Washington Cotton Factory, on U.S. 91 (Frontage Road West).

Weber County

Ogden, Bertha Eccles Community Art Center, 2580 Jefferson Avenue.
Ogden, Goodyears, Miles Cabin, Tabernacle Square.

VERMONT

Addison County

Addison, Chimney Point Tavern, Vermont 125.
Bennington, Bennington Battle Monument, Monument Circle.
Middlebury, *Willard (Emma) House, Middlebury College campus.
Orwell, Mount Independence, on Lake Champlain opposite Fort Ticonderoga.
Ripton vicinity, *Frost (Robert) Farm, Homer Noble Farm, 1 mile north on Vermont 125, 3 miles east of Ripton.

Bennington County

South Shaftsbury, *Frost (Robert) Farm, The Gully, 0.25 mile east of Vermont 7 on Buck Hill Road.

Caledonia County

Lyndon, Old Schoolhouse Bridge, South Wheelock Road.

Chittenden County

Burlington, Ethan Allen Engine Co. No. 4, Church Street.
Sheburne, *The Ticonderoga, Sheburne Museum.

Grand Isle County

Grand Isle, Hyde Log Cabin, U.S. 2.

Orange County

Stratford, *Morrill (Justin Smith) Homestead, south of the Common.

Rutland County

Castleton, Castleton Medical College Building, South Street.
Hubbardton, Hubbardton Battlefield, junction of Castleton-Hubbardton Road, and Old Military Road to Mount Independence.

Washington County

Montpelier, *Vermont Statehouse, State Street.

Windsor County

Goulds Mill, Eureka Schoolhouse, Charleston Road.
Plymouth, Plymouth Historic District, the entire village of Plymouth; bounded on the east by East Mountain, on the south by Blueberry Hill and Solutudus Mountain, on the west by Mount Tom, and on the north by Wood Peak.
Plymouth Notch, *Coolidge (Caleb) Homestead, off Vermont 100A.
Windsor, Old Constitution House, 16 North Main Street.
Windsor, *Robbins and Lawrence Armory and Machine Shop, South Main Street.
Windsor, Windsor House, North Main Street.
Woodstock, *Marsh (George Perkins) Bog-hood Home, 54 Elm Street.

VIRGIN ISLANDS

St. Croix Island

Christiansted, Christiansted National Historic Site.
*Columbus Landing Site, Salt River Bay.

St. Thomas Island

St. Thomas National Historic Site, Charlotte Amalie.

VIRGINIA

Accomack County

Accomack, St. James Church, east side of Daugherty Road between Back Street and Ocean Highway.
Hollywood vicinity, Wessells Book Cellar, 0.1 mile north of intersection of Routes 701 and 692.
Metomkin Island vicinity, Bowman's Folly, 2.5 miles southeast of intersection of Route 652 and Route 13.
Onancock, Hopkins and Brother Store, Market Street.
Onancock, Kerr Place, northeast corner of Crockett Avenue and Market Street.
Pungoteague, St. George's Church, northwest side of Route 178, 0.3 mile northeast of the intersection with Route 180.

Albemarle County

Charlottesville vicinity, Farmington, 0.9 mile west of the intersection of Routes 250 and 29-250 Bypass.
Charlottesville vicinity, *Monticello, 2 miles south of Charlottesville on Virginia 53.
Covesville vicinity, Redlands, 0.1 mile east of intersection of Routes 708 and 627.
Keene vicinity, Christ Church Glendower, on Route 713, 0.4 mile southwest of its intersection with Route 712.

Alexandria (independent city)

*Alexandria Historic District, bounded roughly by the Capital Beltway on the south, Alfred and Patrick Streets on the west (with an extension westward along Prince Street), Oranoco and Princess Streets on the northwest and northeast respectively (with an extension northward along George Washington Memorial Parkway to the north city limits), and by the Potomac River on the east.

Carlyle House, 123 North Fairfax Street.

*Christ Church, southeast corner of Cameron and Columbus Streets.

*Gadsby's Tavern, 128 North Royal Street.
The Lyceum, 201 South Washington Street.

Allegheny County

Covington, Humpback Bridge, 0.2 mile south of U.S. 60, 0.5 mile southwest of intersection of U.S. 60 and County Route 651.

Amelia County

Chula vicinity, Wigwam, 8 miles northwest of Chula.

Amherst County

Sweet Briar, Sweet Briar House, 0.1 mile southwest of the intersection of Routes 29 and 624.

Appomattox County

Appomattox vicinity, Appomattox Court House National Historical Park, 3 miles northeast of Appomattox on Virginia 24.

Arlington County

Arlington vicinity, Custis-Lee Mansion, Arlington National Cemetery.

Augusta County (also in Nelson County)

Waynesboro, Sunnansco, 0.5 mile west of Route 610, 0.4 mile south of intersection of Route 610 and Route 250.

Bath County

Bacova vicinity, Hidden Valley, 1.1 miles north of intersection of Routes 621 and 99.

Bedford County

Bedford vicinity, Fancy Farm, on Route 43, 0.1 mile north of the intersection with Route 692.

Bedford vicinity, Three Others, 0.7 mile west of the intersection of Routes 638 and 49.

Lynchburg vicinity, Poplar Forest, 0.5 mile south of intersection of Routes 661 and 460.

Botetourt County

Fincastle, Botetourt County Courthouse, northwest corner of Main and Roanoke Streets.

Fincastle, Fincastle Historic District, bounded roughly by Back and Carper Streets on the north, by properties fronting on Hancock Street on the east, by Griffin Alley, the cemetery, and a line midway between Main Street and Murray Street on the south, and Catawba Street on the west.

Buckingham County

Buckingham, Buckingham Court House Historic District, along Route 60 extending 0.3 mile east of intersection of Routes 60 and 631, through Buckingham Court House.

Campbell County

Long Island vicinity, Green Hill, 0.3 mile south of intersection of Routes 633 and 728.

Caroline County

Bowling Green vicinity, Old Mansion, 0.4 mile south of intersection of Routes 2 (301) and 207.

Port Royal, Port Royal Historic District, bounded on the north by the intersection of Route 301 and the Rappahannock River; extending 0.1 mile east of intersection of Routes T 1004 and T 1005, 0.1 mile west of intersection of Routes T 1003 and 301, and 0.2 mile south of intersection of Routes T 1003 and 301.

Port Royal vicinity, Camden, 0.5 mile north of intersection of Routes 686 and 17.

Charles City County

Charles City, Charles City County Courthouse, 0.1 mile south of intersection of Routes 628 and 5.

Charles City vicinity, *Westover, 7 miles west of Charles City on Virginia 5.

Charles City vicinity, Greenway, 0.6 mile west of intersection of Routes 5 and 155.

Charles City vicinity, *Tyler (John) House (Sherwood Forest), 4 miles east of Charles City on Virginia 5.

Hopewell vicinity, *Eppes Island, between Eppes Creek and the James River at the confluence of the James and Appomattox Rivers.

Hopewell vicinity, *Shirley, 0.4 mile southwest of Route 608, 1.5 miles west of intersection of Route 606 and Route 5.

Charlotte County

Brookneal vicinity, Staunton Hill, 0.8 mile west of Turnip Creek, 0.2 mile southeast of Route 619, 1.4 miles southwest of intersection of Route 619 and Route 693.

Charlottesville (independent city)

*Rotunda, University of Virginia, University of Virginia campus.

University of Virginia Historic District, bounded on the north by University Avenue, on the south by Jefferson Park Avenue, on the east by Hospital Road, and on the west by McCormick Road.

Chesterfield County

Midlothian vicinity, Bellona Arsenal, 0.1 mile northwest of Route 673, 2 miles northwest of intersection with Route 147.

Wintercock vicinity, Eppington, 1.6 miles south of intersection of Routes 621 and 602.

Clarke County

Berryville vicinity, *Annefeld, 0.7 mile east of intersection of Routes 633 and 652.

Berryville vicinity, Fairfield, 0.2 mile east of intersection of Routes 340 and 610.

Berryville vicinity, Long Branch, 0.1 mile north of Long Branch, 18 miles southwest of Route 628, 0.1 mile west of intersection of Routes 626 and Route 624.

Boyce vicinity, Saratoga, 0.4 mile southeast of intersection of Routes 723 and 617.

Millwood, Millwood Mill, southwest side of intersection of Routes 723 and 255.

White Post vicinity, *Greenway Court, 1 mile south of White Post on Virginia 271.

Culpeper County

Stevensburg vicinity, Salubria, 0.8 mile east of intersection of Routes 3 and 693.

Warrenton vicinity, Little Fork Church, intersection of Routes 624 and 726.

Danville (independent city)

Danville Public Library, 975 Main Street.

Dinwiddie County

Dinwiddie vicinity, Burnt Quarter, 0.7 mile southwest of intersection of Routes 627, 619, and 648.

Petersburg vicinity, *Five Forks Battlefield, 12 miles west of Petersburg on County Road 627 at Church Road.

Petersburg vicinity, Mayfield Cottage, 0.5 mile east of intersection of Routes 1 and 460.

Petersburg vicinity, Petersburg National Battlefield, southeast, south, and southwest of Petersburg (also in Prince George County).

Rowntown vicinity, Williamson Site, 0.9 mile north of intersection of Routes 693 and 703.

Essex County

Caret vicinity, Blandfield, 0.7 mile east of intersection of Routes 624 and 17.

Loretto vicinity, Brooke's Bank, 1 mile east of Loretto, 1.4 miles north of Route 17.

Loretto vicinity, Elmwood, 0.2 mile southwest of the intersection of Routes 640 and 17.

Fairfax County

Acotink vicinity, Pope-Leigh House, east of Acotink off U.S. 1.

Acotink vicinity, Woodlawn Plantation, 0.4 mile west of intersection of U.S. 1 and Route 235.

Alexandria vicinity, *Gunston Hall, 15 miles south of Alexandria on Virginia 242.

Alexandria vicinity, *Mount Vernon, 7 miles south of Alexandria on George Washington Memorial Parkway.

Chantilly vicinity, Sully, 0.8 mile northeast of the intersection of Routes 28 and 60.

Lorton, Pohick Church, 9201 Richmond Highway.

Falls Church (independent city)

The Falls Church, 115 East Fairfax Street.

Flovanna County

Bremo Bluff vicinity, Bremo, 0.9 mile north of intersection of Routes 15 and 656.

Columbia, Point of Fork, west bank of Rivanna River, 0.3 mile north of southeast end of Route 624, 1.3 miles southeast of intersection of Route 624 and Route 656.

Palmyra, Fluvanna County Courthouse Historic District, extending 0.3 mile north of the intersection of Routes 601 and 15 and to the Rivanna River on the south; bounded on the east by Route 15 and on the west by the river.

Franklin County

Rocky Mount vicinity, Booker T. Washington National Monument, 16 miles east of Rocky Mount on Virginia 122.

Frederick County

Middletown vicinity, *Cedar Creek Battlefield and Belle Grove, on Interstate 81 between Middletown and Strasburg.

Fredericksburg (independent city)

Fredericksburg Historic District, bounded on the northeast by the Rappahannock River; on the southwest by a line parallel to Prince Edward Street halfway between it and Winchester Street; extending north to Canal Street and south to the intersection of Hazel Run and the river.

*Kenmore, 1201 Washington Avenue.

*Monroe Law Office, 908 Charles Street.

*Rising Sun Tavern, 1306 Caroline Street.

Gloucester County

Gloucester vicinity, Abingdon Glebe House, 0.7 mile south of the intersection of Routes 17 and 615.

Gloucester vicinity, Rosetell, 0.1 mile west of Carter Creek, 15 miles southeast of Route 644, 0.3 mile south of intersection of Routes 644 and Route 632.

Gloucester vicinity, Toddshury, 1.1 miles east of intersection of Routes 622 and 14 (3).

Ware Neck vicinity, Lowland Cottage, southwest of Ware Neck, 0.6 mile south of Route 623.

White Marsh vicinity, Abingdon Church, 0.6 mile south of the intersection of Routes 17 and 614.

Goochland County

Goochland, Goochland County Court Square, east side of Route 6 (Route 622).

Manakin vicinity, *Tuckahoe, on James River southeast of Manakin via secondary roads.

Oliville vicinity, Woodlawn, at the intersection of Routes 250 and 612.

Rock Castle vicinity, Rock Castle, east side of the southern end of Route 600.

Grayson County

Trout Dale vicinity, Ripshin, north side of Route 732, 0.1 mile east of the intersection with Route 603.

Harrisonburg (independent city), Morrison House, northwest corner of the intersection of West Market and North Liberty Streets.

Greene County

Standards vicinity, Greene County Courthouse, northwest corner of Route 649, 0.1 mile south of intersection with Route 33.

Standards vicinity, *Otonia Stone, 1.7 miles northwest of the intersection of Routes 637 and 1001.

Halifax County

South Boston vicinity, Berry Hill, 1.5 miles south of intersection of Routes 659 and 682.

Hampton (independent city)

*Fort Monroe, Old Point Comfort.

Fort Wool, on island at the entrance to Hampton Roads between Willoughby Spit and Old Point Comfort.

Hampton Institute, south side of Route 60, 0.8 mile northwest of intersection of Route 60 and Hampton Roads Bridge Tunnel.

St. John's Church, northwest corner of West George and Court Streets.

Hanover County

Ashland vicinity, Fork Church, east side of Route 738 at intersection with Route 685.

Ashland vicinity, *Henry (Patrick) House (Scotttown), 10 miles northwest of Ashland on Virginia 685.

Hanover Court House, Hanover County Courthouse, east side of Route 301 at intersection of Route 1006 and Route 301.

Richmond vicinity, Richmond National Battlefield Park (also in Henrico County and Richmond).

Richmond vicinity, *Ruffin (Edmund) Plantation (Maribourne), 11 miles northeast of Richmond on U.S. 360.

Henrico County

Richmond National Battlefield Park (see Hanover County).

Richmond vicinity, Flood Marker of 1771, 0.8 mile southeast of the intersection of Routes 5 and 156.

Richmond vicinity, James River and Kanawha Canal Historic District, extends from Ship Locks to Boshers's Dam.

Richmond vicinity, Malvern Hill, 13 miles southeast of intersection of Routes 5 and 156.

Hopewell (independent city)

Appomattox Manor, at the confluence of the James and Appomattox rivers, on the south bank.

Isle of Wight County

Benn's Church, *St. Luke's Church.

Smithfield, Old Isle of Wight County Courthouse, northeast corner of Main and Mason Streets.

James City County

Five Forks vicinity, Powhatan, 0.8 mile north of the intersection of Routes 615 and 4.

Jamestown, Jamestown National Historic Site, Jamestown Island.

Jamestown and vicinity, *Colonial National Historical Park* (also in Williamsburg and in York County).

Williamsburg vicinity, **Carter's Grove*, 0.2 mile southeast of intersection of Routes 60 and 667.

King George County

Comern vicinity, *Marmion*, 0.8 mile northeast of intersection of Routes 640 and 609.

King George Court House vicinity, *Nanzatico*, 1.8 miles south of intersection of Routes 650 and 625.

King and Queen County

Stevensville vicinity, *Hillsborough*, 0.6 mile southwest of Route 633, 1.9 miles northeast of its intersection with Route 632.

Lynchburg (independent city)

The Academy of Music, 522-526 Main Street. Point of Honor, 112 Cabell Street.

Madison County

Madison, *Madison County Courthouse*, U.S. 29.

Madison vicinity, *Hebron Lutheran Church*, northeast side of Routes 638 and 653, 1 mile northeast of the intersection of Routes 638 and 231.

King William County

King William, *King William County Courthouse*, east side of Route 619, 0.1 mile north of intersection of Route 619 and Route 30.

Tunstall vicinity, *Elising Green*, 2.1 miles southwest of intersection of Routes 632 and 623.

West Point vicinity, *Chelsea*, 1.7 miles north of intersection of Chelsea Road and Route 30.

Lancaster County

Kilmarnock vicinity, **Christ Church*, 3 miles south of Kilmarnock on Virginia 3.

Lively vicinity, *St. Mary's Whitechapel*, 0.1 mile northwest of intersection of Routes 354 and 201.

Weems vicinity, *Cortoman*, south side of the intersection of Routes 222 and 631.

Lee County

Cumberland Gap National Historical Park (see Bell County, Ky.).

Lexington (independent city)

**Baracks*, *Virginia Military Institute*, north side of Lexington on U.S. 11.

**Lee Chapel*, Washington and Lee University campus.

Loudoun County

Aldie, *Aldie Historic District*, extending 0.1 mile east of the intersection of Routes 612 and 50, 0.1 mile west of the intersection of Routes 50 and 732, and 0.2 mile north and 0.3 mile south of Route 50.

Leesburg, *Leesburg Historic District*, beginning on the east at the intersection of Loudoun and Market Streets, running to the northeast parallel to Church Street to the intersection of a line in projection of North Street; then northwest to and along North Street to intersection of Church Street; then northeast parallel to King Street to intersection of a line in projection of Union Street; then northwest along Union Street to the intersection of a line in extension of Liberty Street; then southwest to the intersection of Liberty and North Streets; then northwest along an extension of North Street until intersecting a line in projection of Ayr Street; then southwest along Ayr Street to a point 100 feet south of Ayr Street and Twin Branch Creek; then southeast along an extension of South Street to a point 200 feet west of King Street; then southwest parallel to King Street to a point 500 feet south of the

railroad; then east across King Street and parallel to South Street for 1,700 feet; then northeast parallel to King Street to the intersection of Loudoun and Market Streets.

Leesburg vicinity, **Monroe (James) House*, *Oak Hill*, 8 miles south of Leesburg on U.S. 15.

Leesburg vicinity, *Outlands*, 1 mile south of intersection of Routes 15 and 651.

Leesburg vicinity, **Waterford Historic District*, Virginia 665, 7 miles northwest of Leesburg. A pentagonal-shaped area following topographical features; measuring, from the intersection of Main Street and Second Street, 0.9 mile to the northeast, 1.4 miles to the southeast, 1.2 miles to the southwest, 1.2 miles to the west, and 0.9 mile to the northwest.

Sterling vicinity, *Broad Run Bridge and Tollhouse*, at intersection of Routes 7 and 28 with Broad Run.

Louisa County

Gordonsville vicinity, *Boswell's Tavern*, 0.1 mile southeast of intersection of Routes 22 and 15.

Gordonsville vicinity, *Hawwood*, 0.5 mile west of the intersection of Routes 617 and 15.

Trevilians vicinity, *Westend*, 1.1 miles south of the intersection of Routes 638 and 22.

Mathews County

Hudgins vicinity, *Crickett Hill (Fort Cricket Hill)*, northeast of Hudgins, 0.2 mile east of the intersection of Routes 669 and 223.

Williams vicinity, *Poplar Grove Mill and House*, west of Williams on secondary road.

Mecklenburg County

Clarksville vicinity, *Prestwood*, 0.1 mile north of Roanoke River, 16 miles southwest of intersection of Routes 15 and Route 701, 1 mile north of Clarksville city limits.

Montgomery County

Blackburg vicinity, *Smithfield*, 1 mile west of Blackburg city limits.

Elliston vicinity, *Fotheringay*, 1.4 miles south of intersection of Routes 11 and 631.

Nelson County

Waynesboro, *Staannanos* (see Augusta County).

New Kent County

New Kent Court House, *St. Peter's Church*, north side of Route 642, 0.4 mile northeast of intersection of Route 642 and Route 609.

Tunstall vicinity, *Hampstead*, 1 mile west of the intersection of Routes 606 and 607.

Newport News (independent city)

Denbigh Plantation, 0.2 mile southwest of southern end of Lukas Creek Road.

Hilton Village, bounded by the James River on the southwest, Post Street on the northwest, the Chesapeake & Ohio Railroad tracks on the northeast, and Hopkins Street on the southeast.

Jones, *Matthews House*, Fort Eustis Military Reservation, intersection of MacAlliff Avenue and James River Road.

Norfolk (independent city)

Allmand-Archer House, 327 Duke Street.

Christ Church, 421 East Freemason Street.

U.S. Customs House, 101 East Main Street.

Freemason Street Baptist Church, northeast corner of Freemason and Bank Streets.

Myers (Moses) House, southwest corner of East Freemason and North Bank Streets.

Norfolk Academy Building, 420 Bank Street.

St. Paul's Church, 201 St. Paul's Boulevard.

Whitlie House, 225 West Freemason Street.

Willoughby-Baylor House, 601 Freemason Street.

Northampton County

Bridgetown, *Hungars Church*, 0.2 mile east of the intersection of Routes 619 and 622.

Bridgetown vicinity, *Vaulcuse*, 1.8 miles south of the intersection of Routes 619 and 657.

Bridgetown vicinity, *Winona*, 0.7 mile south of Route 619, 0.4 mile northwest of intersection of Route 619 and Route 622.

Cheapside vicinity, *Custis Tombs*, 1.3 miles northwest of intersection of Routes 644 and 645.

Cheriton vicinity, *Eyre Hall*, 1.6 miles north of intersection of Routes 13 and 680.

Eastville vicinity, *Casaria*, 1 mile northwest of intersection of U.S. 13 and Route 630.

Eastville vicinity, *Pear Valley*, 0.1 mile south of intersection of Routes 680 and 628.

Franktown vicinity, *Glebe of Hungars Parish*, 1.3 miles northwest of intersection of Routes 622 and 619.

Jamestown vicinity, *Sommers House*, 0.2 mile southwest of intersection of Routes 183 and 691.

Namawadox vicinity, *Brownsville*, 1.2 miles southeast of the intersection of Routes 608 and 600.

Orange County

Barboursville vicinity, *Barboursville*, 0.5 mile south of intersection of Routes 777 and 678.

Orange vicinity, *Mayhurst*, 0.4 mile southwest of intersection of Routes 15 and 647.

Orange vicinity, **Madison, James House*, (Montpelier), 4 miles west of Orange on Virginia 29.

Page County

Luray, *Aventine Hall*, 143 South Court Street.

Patriek County

Critz vicinity, *Reynolds Homestead*, east side of Route 748, 0.5 mile north of the intersection with Route 626.

Petersburg (independent city)

Battersea, 793 Appomattox Street.

City Market, Cockade Alley.

Exchange Building, 15-19 West Bank Street.

Pittsylvania County

Chatham vicinity, *Little Cherrystone*, 0.1 mile north of intersection of Routes 703 and 632.

Portsmouth (independent city)

Drydock No. 1, Norfolk Naval Shipyard.

Portsmouth Court House, northeast corner of Court and High Streets.

Portsmouth Old Towne Historic District, bounded on the north by Crawford Parkway, on the south by London Street, on the east by the Elizabeth River, and extending 0.1 mile west of Washington Street.

Powhatan County

Powhatan Court House, *Powhatan Court House Historic District*, 0.2 mile north and south and 0.1 mile east and west of Routes 13 and 304.

Powhatan vicinity, *Belmead*, 0.5 mile northwest of intersection of Routes 663 and 600.

Prince Edward County

Briery vicinity, *Briery Church*, 0.3 mile north of intersection of Routes 747 and 671.

Hampden-Sydney, *Hampden-Sydney College Historic District*, bounded approximately by the campus of Hampden-Sydney College.

Prince George County

Petersburg National Battlefield (see Dinwiddie County).

Brandon vicinity, **Brandon*, west bank of the James River at end of Route 611.

Hopewell vicinity, *Merchan's Hope Church*, 0.5 mile west of intersection of Routes 641 and Virginia 10.

Prince William County

Dumfries, Old Hotel, U.S. 1.
Manassas vicinity, Manassas National Battlefield Park.
Minnette vicinity, Bel Air, 0.9 mile west of Route 640.
Woodbridge vicinity, Rippon Lodge, 0.8 mile north of the intersection of Routes 1 and 642.

Palaski County

Radford vicinity, Ingle's Ferry, 0.9 mile north of intersection of Routes 611 and 624.

Richmond (Independent city)

Beers (William) House, 1228 East Broad Street.
Bell Tower, Capitol Square.
Branch Building, 1015 East Main Street.
Donnan-Asher Iron Front Building, 1207-1211 East Main Street.
Egyptian Building, southwest corner of East Marshall and College Streets.
First African Baptist Church, northeast corner of College and East Broad Streets.
First Baptist Church, northwest corner of 12th and Broad Streets.
Hancock-Wirt-Caskie House, 2 North Fifth Street.

Hollywood Cemetery, 412 Cherry Street.
James River and Kanawha Canal Historic District (see Henrico County).
James River and Kanawha Connection Locks, south of Cary Street between 10th and 13th Streets.
Jefferson Hotel, northeast corner, West Main and North Jefferson Streets.
Kent-Valentine House, 12 East Franklin Street.

Leigh (Benjamin Watkins) House, 1000 East Clay Street.

Linden Row, 100-114 East Franklin Street.
Main Street Station, 1820 East Main Street.
Marshall (John) House, Ninth and Marshall Streets.

Maupin-Maury House, 1105 East Clay Street.
Maymont, Spotswood Road.

Monument Avenue Historic District, bounded on the southeast by a straight line running from the center of the block on Grace Street between Ryland and Lombardy Streets to the intersection of Birch Street and Park Avenue; on the southwest by Park Avenue to Belmont Avenue and then west in a straight line to the intersection of Rosemeath Road and Wythe Avenue; on the northwest by Wythe Avenue; on the northeast by Grace Street.
Monumental Church, 1224 East Broad Street.
Moran's Row, 210-223 Governor Street.

Putney House, 1010-1012 East Marshall Street.
Richmond City Hall, bounded by 10th, Broad, 11th, and Capitol Street.

Richmond National Battlefield Park, East Broad Street.

St. John's Church Historic District, bounded roughly by 22d Street on the west, Marshall Street on the north, East Franklin Street on the south, and 29th Street on the east.

St. John's Episcopal Church, East Broad Street between 24th and 25th Streets.

St. Paul's Church, 815 East Grace Street.
St. Peter's Church, 800 East Grace Street.
Shelley Arms Hospital, 1006 East Clay Street.

Stearns Iron Front Building, 1007-1013 East Main Street.

Tredegar Ironworks, bounded on the north by the James River and Kanawha Canal, on the south by the James River, on the west by Route 1 (301), and thence extending 0.4 mile east.

U.S. Post Office and Customs House, 1000 East Main Street.

Valentine Museum, 1005-1015 East Clay Street.

Virginia Governor's Mansion, Capitol Square.
*Virginia State Capitol (Second Confederate Capitol), Capitol Square.

*White House of the Confederacy, Clay and 12th Streets.

William J. Clark Library and Barco-Stevens Hall, west side of Lombardy Street at intersection with Brook Road.

Richmond County

Ethel vicinity, Menokin, 0.8 mile southwest of Route 690, 1.3 miles northwest of intersection of Routes 690 and 621.

Tappahannock vicinity, *Sabine Hall, 1.4 miles south of intersection of Routes 624 and 360.

Warsaw vicinity, *Taylor (John) Plantation, (Mount Airy), 1 mile west of Warsaw on U.S. 360.

Roanoke County

Salem, Williams-Brown House-Store, 523 East Main Street.

Rockbridge County

Lexington, Alexander-Withrow House, north corner of Main and Washington Streets.

Lexington vicinity, Timber Ridge Presbyterian Church, 0.3 mile southwest of intersection of Routes 11 and 716.

Staunton vicinity, *McCormick (Cyrus) Farm and Workshop, 18 miles south of Staunton on U.S. 11 and Rockbridge County 606 at Walnut Grove.

Rockingham County

Broadway, Tunker House (Yount-Zigler House), 0.2 mile east of the intersection of Routes 736 and 42.

Shenandoah County

Middletown vicinity, Fort Bowman, 0.4 mile northeast of intersection of Routes 11 and 660.

New Market vicinity, New Market Battlefield Park, 1 mile north of the intersection of Routes 11 and 211.

Smyth County

Marion vicinity, Preston House, Herndon, 0.1 mile south of intersection of Routes 645 and 11.

Spotsylvania County

Fredericksburg vicinity, Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park, Fredericksburg and the area in Spotsylvania County to the west and southwest.

Stafford County

Brooke vicinity, Potomac Creek Site, north bank of Potomac Creek at confluence with Accokeek Creek.

Falmouth, Falmouth Historic District, extending from the intersection of Routes 1 and 17, 0.3 mile north, 0.6 mile east, 0.2 mile south, and 0.3 mile west.
Falmouth, *Melchers (Gari) Home (Belmont).

Garrisonville vicinity, Aquia Church, 0.1 mile north of intersection of Routes 1 and 610.

Staunton (Independent city)

Western State Hospital, Main Building, southeast corner of Greenville Avenue and Route 260.

Virginia School for the Deaf and Blind, southeast side of intersection of East Beverly Street and Pleasant Terrace.

*Wilson, Woodrow, Birthplace, North Coaster Street between Beverly and Frederick Streets.

Surry County

Bacon's Castle, *Allen (Arthur) House (Bacon's Castle).

Jamestown vicinity, Chippokes Plantation, south bank of James River between Old-lege Run on the west and Lower Chippokes Creek on the east, opposite Jamestown Island.

Surry vicinity, Four Mile Tree, 0.2 mile northeast of the intersection of Routes 610 and 618.

Surry vicinity, Smith's Fort, 0.8 mile northeast of the intersection of Routes 31 and 620.

Sussex County

Grimard vicinity, Fortville, 1.6 miles southeast of the intersection of Routes 612 and 611.

Homeville vicinity, Chester, 0.2 mile north of the intersection of Routes 625 and 35.

Tazewell County

Malden Spring vicinity, Indian Paintings, 2½ miles northwest of Malden Spring.

Virginia Beach (Independent city)

*Cape Henry Lighthouse, Atlantic Avenue at U.S. 60.

Fembroke Manor, 1.5 miles east of intersection of Routes 58, 627, and 647.

*Thoroughgood (Adam) House, 4 miles east of Norfolk on Lynnhaven River.
Wishart-Bousch House, 0.4 mile east of intersection of Route 649 and Absecon Road.

Warren County

Cedar Creek Battlefield and Belle Grove (see Frederick County).

Milledale, Mount Zion, 0.7 mile northeast of intersection of Routes 624 and 639.

Washington County

Abingdon, Abingdon Bank, 225 East Main Street.

Abingdon, Abingdon Historic District, extending 0.1 mile north and south of Main Street (Route 11) and 0.3 mile northeast and southwest of intersection of Main and Cummings Streets.

Westmoreland County

Fredericksburg vicinity, George Washington Birthplace National Monument, 28 miles east of Fredericksburg via Virginia 216, 301, and 705.

Montross vicinity, Chantilly, 1.4 miles east of Route 608, 1.5 miles north of the intersection with Route 622.

Stratford, *Stratford Hall.

Tucker Hill vicinity, *Yeocomico Church, on Route 606, 0.5 mile southwest of Tucker Hill.

Williamsburg (Independent city)

*Bruton Parish Church, Duke of Gloucester Street.

Colonial National Historical Park (see James City County).

*Randolph (Peyton) House, intersection of Nicholson and North England Streets.

*Semple (James) House, south side of Francis Street between Blair and Waller Streets.

*Williamsburg Historic District, bounded by Francis, Waller, Nicholson, North England, Lafayette, and Nassau Streets.

*Wren Building, College of William and Mary, College of William and Mary campus.

*Wythe House, west side of the Palace Green.

Winchester (Independent city)

Handley Library, northwest corner of Braddock and Piccadilly Streets.

*Jackson (Thomas J.) Headquarters, 415 North Braddock Street.

Wythe County

Max Meadows vicinity, Fort Chiswell Memorial, U.S. 11, 0.6 mile east of the intersection with U.S. 52 and Virginia 121.

Prairie du Chien, *Second Fort Crawford, bank of the Mississippi River.
Prairie du Chien, *Villa Louis, St. Feriole Island.

Dane County

Madison, Camp Randall, Camp Randall Memorial Park.
Madison, *North Hall, University of Wisconsin, University of Wisconsin campus.
Madison, Old Synagogue (Shaare Shomaim Synagogue), 214 West Washington Avenue.
Madison, Wisconsin State Capitol, Capitol Square.
Maple Bluff, *La Follette (Robert M.) Home, 733 Lakewood Boulevard.

Door County

Fish Creek vicinity, Eagle Bluff Lighthouse, 3.5 miles north of Fish Creek on Shore Road in Peninsula State Park.

Douglas County

Bolon Springs vicinity, Bruie-St. Croix Portage, about 3 miles northeast of Bolon Springs in Bruie River State Forest.

Grant County

Cassville vicinity, Stonefield, 2.5 miles west of Cassville, on County Route VV.

Iowa County

Mineral Point, Mineral Point Historic District, within a rectangle the coordinates of which are on the northwest latitude 42° 52'22" N., longitude 90° 11'29" W.; on the northeast latitude 42° 52'22" N., longitude 90° 9'44" W.; on the southeast 42° 51'26" N., longitude 90° 9'44" W.; on the southwest 42° 51'26" N., longitude 90° 11'29" W.
Mineral Point, Pendarvis, 114 Shake Rag Street.

Jefferson County

Fort Atkinson, Panther Intaglio Effigy Mound, on Wisconsin 106 at west corporate city limits.

Lake Mills vicinity, *Astoria, near Lake Mills on Wisconsin 89, Astoria State Park.

Watertown, Octagon House, 619 Charles Street.

Lafayette County

Belmont vicinity, First Capitol, 3 miles north and 1 mile west of Belmont.

Marquette County

Peshigo, Peshigo Fire Cemetery, Oconto Avenue between Peck and Ellis Avenues.

Oconto County

Oconto, *Oconto Site, Copper Culture State Park.

Rock County

Janesville, Lincoln-Tallman House, 440 North Jackson Street.
Janesville, Wright-Amato House, 923 Mineral Point Avenue.

Sauk County

Baraboo, Ringling Brothers Circus Headquarters, Ringlingville, bounded roughly by Water Street on the north, Briar Street on the east, Lynn Street on the south, and East Street on the west.

Sheboygan County

Greenbush, Wade, Sylvanus, House, intersection of Wisconsin 23 and Kettle Moraine Drive in Old Wade House State Park.

Washington County

West Bend vicinity, Lizard Mound State Park, 3 miles northeast of West Bend on Wisconsin 144, then 0.33 mile east on County Route A.

WYOMING

Big Horn County

Kane vicinity, *Medicine Wheel (Indian site), just north of U.S. 14 alternate, about 15 miles east of Kane.

Carbon County

Elk Mountain vicinity, Fort Halleck, NW¼ NE¼NE¼ sec. 20, T. 20 N., R. 18 W.

Rawlins vicinity, Bridger's Pass, SE¼NW¼ sec. 8, T. 18 N., R. 89 W.

Fort Fred Steele vicinity, Fort Fred Steele, on North Platte River at point of Union Pacific Railroad crossing.

Independence Rock vicinity, *Sun (Tom) Ranch, 6 miles west of Independence Rock on Wyoming 220 (also in Natrona County).

Saratoga vicinity, Platte River Crossing (Bennett's Crossing), 17 miles west of Saratoga, SE¼ sec. 33, T. 19 N., R. 85 W.

Converse County

Glenrock vicinity, Glenrock Buffalo Jump, about 2.5 miles west of Glenrock Interchange on Int. 25.

Douglas vicinity, Fort Fetterman, W¼SE¼ E¼SW¼ sec. 10, and NE¼NE¼ sec. 15, T. 33 N., R. 72 W.

Fremont County

Etchete, St. Michael's Mission.

Fort Washakie, Fort Washakie, on U.S. 287.

Moneta vicinity, Castle Gardens Petroglyph Site, c. 28 miles south of Moneta on U.S. 20-26.

South Pass City, South Pass City, sec. 20, T. 29 N., R. 100 W.

South Pass City vicinity, *South Pass, 10 miles southwest of South Pass City on Wyoming 28.

Union Pass, on Continental Divide, 12 miles west-southwest of Wind River Ranger Station, Shoshone National Forest; 16 miles north-northeast of Kendall Ranger Station, Bridger National Forest; 20 miles east-southeast of Goose Wing Ranger Station, Teton National Forest.

Goshen County (also in Niobrara County)

Lusk vicinity, Cheyenne-Black Hills State Route and Rawhide Buttes and Running Water Stage Stations, 1 mile west of Lusk to c. 15 miles southwest of Lusk (includes both stage stations).

Fort Laramie vicinity, Fort Laramie National Historic Site, 3 miles southwest of Fort Laramie.

Hot Springs County

Thermopolis vicinity, Woodruff Cabin Site, 26 miles northwest of Thermopolis, 18 miles west on County Route 0900 from intersection with Wyoming 120.

Johnson County

Story vicinity, *Fort Phil Kearny and Associated Sites, on secondary road west of U.S. 87.

Sussex vicinity, Fort Reno, SE¼SE¼NW¼ sec. 33, T. 45 N., R. 78 W.

Laramie County

Cheyenne, Governor's Mansion, 300 East 21st Street.

Cheyenne, St. Mark's Episcopal Church, 1908 Central Avenue.

Cheyenne vicinity, Francis E. Warren Air Force Base, bounds against the west side of Cheyenne, the two are roughly separated by Interstate 25.

Lincoln County

La Barge vicinity, Names Hill, on the Green River, 5 miles south of La Barge, just west of U.S. 189.

Natrona County

Casper, Fort Caspar, 14 Fort Caspar Road. Casper vicinity, *Independence Rock, 60 miles southwest of Casper on Wyoming 220.

Casper vicinity, Pathfinder Dam, 45 miles southwest of Casper.

*Sun (Tom) Ranch (see Carbon County).

Niobrara County

Cheyenne-Black Hills State Route and Rawhide Buttes and Running Water Stage Stations (see Goshen County).

Van Tassel, Ferdinand Branstetter Post No. 1, American Legion, lots 1 and 2, block 8, sec. 17, T. 31 N., R. 60 W.

Park County

Cody vicinity, Buffalo Bill Dam (Shoshone Dam), 7 miles west of Cody.

Cody vicinity, *Horse Site, 4 miles north-east of Cody on U.S. 20.

Wapiti vicinity, *Wapiti Ranger Station, Shoshone National Forest.

Platte County

Chugwater, *Suan Land and Cattle Company Headquarters, east side of Chugwater.

Guernsey vicinity, *Oregon Trail Ruins, south side of the North Platte River, 0.5 mile south of Guernsey.

Guernsey vicinity, Register Cliff, NW¼NW¼ sec. 7, T. 26 N., R. 65 W.

Sheridan County

Ranchester, Connor Battlefield (Tongue River Battlefield), City Park on the Tongue River.

Sheridan, *Sheridan Inn, Broadway and Fifth Street.

Sheridan, Trail End, 400 Clarendon Avenue.

Sublette County

Big Piney vicinity, Wardell Buffalo Trap, 6 miles east and 6 miles north of Big Piney.

Daniel vicinity, Father De Smet's Prairie Mass Site, SE¼SE¼ sec. 36, T. 24 N., R. 111 W.

Daniel vicinity, *Upper Green River Rendezvous Site, on Green River above and below Daniel.

Pinedale vicinity, Fort Bonneville, NE¼NE¼ sec. 30, T. 24 N., R. 111 W.

Union Pass (see Fremont County).

Sweetwater County

Granger, Granger State Station, NW¼NW¼ NE¼ sec. 32, T. 19 N., R. 111 W.

Green River, *Expedition Island.

Rock Springs vicinity, Point of Rocks State Station, SW¼SW¼ sec. 27, T. 20 N., R. 101 W.

Teton County

Jackson vicinity, Miller Cabin, c. 3 miles east of Jackson's central square, along Main Street, follow northeast fork of road for 1 mile beyond city limits.

Moose, Menor's Ferry, on the Snake River.

Utah County

Fort Bridger vicinity, Fort Bridger, on Black's Fork of the Green River near town of Fort Bridger.

Hillard vicinity, Piedmont Charcoal Kilns, 14 miles northeast of Hillard, NW¼SW¼ sec. 4, T. 14 N., R. 117 W.

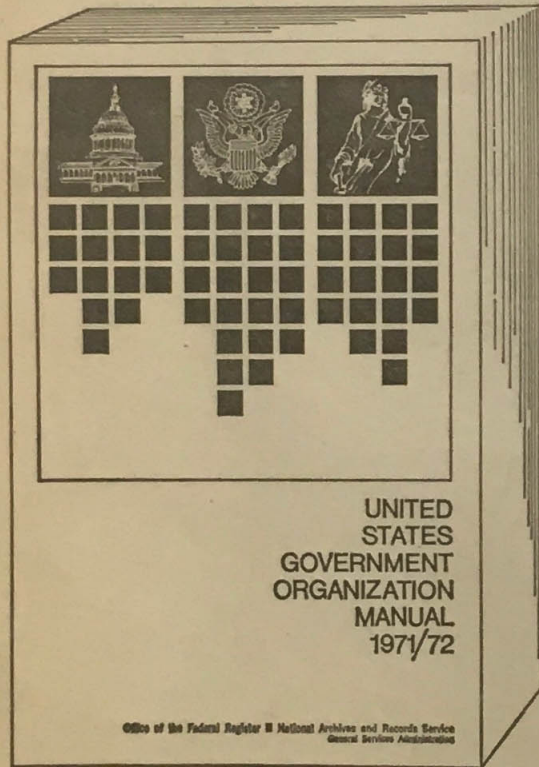
Weston County

Newcastle vicinity, Jenny Stockade, NE¼ NW¼ sec. 7, T. 44 N., R. 60 W.

[FR Doc. 72-3921 Filed 3-14-72; 8:52 am]



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OFFICE OF ECONOMIC OPPORTUNITY

EXECUTIVE OFFICE OF THE PRESIDENT
Region VIII
Federal Bldg., 1961 Stout St.
Denver, Colorado 80202

August 8, 1972

IN REPLY REFER TO: 8/GR

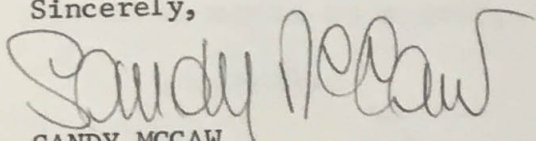
• Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Your request for comments on the Draft Environmental Impact Statement for the proposed new Denver Mint, has been received by the Office of Economic Opportunity. This office has no comments to make regarding the project except to urge that the twenty families and several businesses who will be relocated in connection with the proposed project receive timely advice regarding the benefits for which they qualify under the uniform relocation act.

Thank you for providing us the opportunity to comment on your draft statement.

Sincerely,



SANDY MCCAWE

Governmental Relations Specialist



State of Colorado
DIVISION of COMMERCE and DEVELOPMENT
DEPARTMENT OF LOCAL AFFAIRS

600 State Capitol Annex, Denver, Colorado 80203, Area Code 303, 222-9911

John A. Love
Governor

Dwight E. Neill
Director

16 August 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

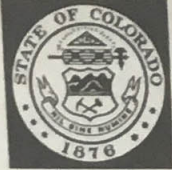
We have reviewed the draft environmental impact
statement for the proposed Denver Mint and have no
comments to submit.

Sincerely,

William C. Hacker

William C. Hacker
Director
Community Development

WCH:nlhK



STATE OF COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. CLEERE, M.D., M.P.H., DIRECTOR

August 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We appreciate the opportunity to comment upon the Draft Environmental Impact Statement for the proposed new Denver Mint.

After careful study by the Air Pollution Control Division, we feel several major points should be considered. Initially, we are concerned about the proposed site of the new mint. The location is very poor from a meteorological point of view. Air pollutants accumulate along the Platte River valley, and tend to follow the river valley northward during nighttime and early-morning poor dispersion conditions. The Platte River valley, with adjoining highway system and local industry already is a major source of Denver air pollutants. Additional industries in this area must be designed for near zero air pollution emissions if we are ever to achieve national ambient air quality standards.

Another major point that should be considered is the current State and national air pollution control emission standards. Toward that end, I am enclosing a copy of the State rules and regulations. It should be pointed out that future emission regulations are now being prepared by both State and national agencies.

If the Colorado Air Pollution Control Division of the Department of Health may be of further service, please call upon us.

Cordially,

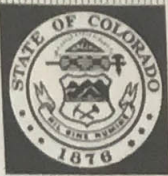
G. P. Wood, Ph.D., Director
Air Pollution Control Division
By:

(Miss) Lindsay M. Tipton

X 241

Lindsay Tipton
Air Pollution Control Specialist
Planning Section
Air Pollution Control Division

LT:pc
Enclosure



STATE OF COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. CLEERE, M.D., M.P.H., DIRECTOR

August 11, 1972

Mr. Frank W. Rhea
Bureau of the Mint
230 West Colfax Ave.
Denver, Colorado 80204

RE: DRAFT Environmental Impact Statement
New Denver Mint

Dear Mr. Rhea:

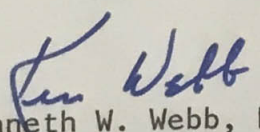
The impact statement referred to above has been reviewed by this Division. Our comments are as follows:

- 1) Section 2.4 Item b, page 10. It is assumed from this statement there will be no effluents from this plant except as noted below.
- 2) Section 2.4 Item c, page 10. It is assumed from this statement that process cooling water will be recirculated for reuse and there will be no discharge of cooling water to the South Platte River. It is conceivable the South Platte adjacent to the proposed Mint site may be reclassified to warm water fishery in the future. We are therefore enclosing a copy of the Water Quality Standards for Colorado for your information. Your attention is called to item B 2 e page 5 in the event provisions are made to bypass the cooling towers for emergency or temporary use.
- 3) We request that adequate provisions be made to prevent an increase in turbidity of the S. Platte during the construction phase of the project.

We thank you for the opportunity to review this statement.

Very truly yours,

FOR DIRECTOR, WATER POLLUTION CONTROL DIVISION


Kenneth W. Webb, P.E.
Public Health Engineer

cc: Dr. Downs

enclosure: Water Quality Standards



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF THE SECRETARY

WASHINGTON, D.C. 20201

February 28, 1973

Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in response to your letter of August 4, 1972, wherein you requested comments on the draft environmental impact statement for the proposed new Denver Mint. Please forgive the delay in responding.

The Department of Health, Education, and Welfare has reviewed the health aspects of the above project as presented in the documents submitted. We offer no comments.

The opportunity to review the draft environmental impact statement is appreciated.

Sincerely yours,

Robert D. Lanza
Special Assistant to the
Assistant Secretary for Health

February 28, 1973

Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

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The opportunity to review the draft environmental impact statement is appreciated.

Sincerely yours,

/s/

Robert D. Lanza
Special Assistant to the
Assistant Secretary for Health

STATE DEPARTMENT OF HIGHWAYS

CHAS. E. SHUMATE

EXECUTIVE DIRECTOR

DIVISION OF HIGHWAYS
LAURENCE C. BOWER
CHIEF ENGINEER

STATE OF COLORADO



COLORADO STATE PATROL
COL. C. WAYNE KEITH
CHIEF

4201 EAST ARKANSAS AVENUE • DENVER, COLORADO 80222 • (303) 757-9011

August 28, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax
Denver, Colorado 80204

Dear Mr. Rhea:

Reference is made to your letter dated August 4, 1972, transmitting a draft Environmental Impact Statement as required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

The Colorado Department of Highways appreciates the opportunity to review this Draft Environmental Impact Statement concerned with the construction of the new United States Mint in Denver, Colorado.

This Department has no objection to the construction of the new Mint at the proposed South Platte River location.

After an on-site examination of the proposed project by personnel from the Department's Environmental Section, the statement in its present form appears to be complete and satisfactory.

If the Colorado Department of Highways can be of further assistance to you please feel free to contact us at your convenience.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'Chas. E. Shumate', is written over the typed name.

CHAS. E. SHUMATE
Executive Director

CES:as

cc: Bower - Haase- Zulian
R. E. Heathcote
Harvey Atchison

DIVISION OF WILDLIFE

Harry R. Woodward, Director

6060 Broadway

Denver, Colorado 80216 • 825-1192

September 20, 1972



Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Division of Wildlife has reviewed the Draft Environmental Statement entitled "Construction of a New United States Mint - Denver, Colorado" and offers the following comments:

A sub-heading is needed to separate the Project Description from the description of the existing environment.

Game species in the area include muskrat, mink, song birds, waterfowl and other migratory birds. Populations are small. Fish species include channel catfish, a few trout and rough fish. The Division of Wildlife has been planting catfish in the South Platte River near the project area for several years.

We recommend that all facilities for treatment of chemical effluent and oils be located out of the flood plain to prevent contamination of the South Platte River through flooding or leakage.

This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area.

We appreciate the opportunity to comment on the statement.

Sincerely,

Harry R. Woodward
Director

DS/cb

cc: T. W. Ten Eyck
E. P. Cook

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

January 16, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

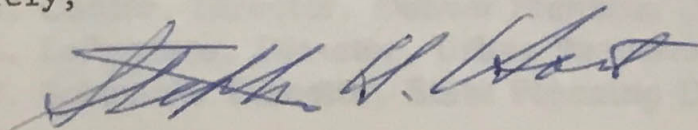
As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

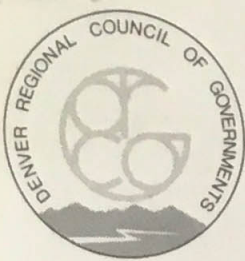
Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,



Stephen H. Hart
Colorado State Liaison Officer



DENVER REGIONAL COUNCIL OF GOVERNMENTS

1776 SOUTH JACKSON STREET - SUITE 200 • DENVER, COLORADO 80210 • 758-5166

September 20, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Subject: EI/008-72 Draft Environmental Impact Statement for
Construction of the New U. S. Mint in Denver, Colorado

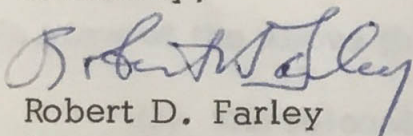
Dear Mr. Rhea:

Reference is made to your letter and enclosure of August 4, 1972, concerning review of the draft Environmental Impact Statement for Construction of the New U. S. Mint in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (Public Law 01-100). In response to your communication, we have notified concerned and affected jurisdictions and agencies in the region and have made available to them copies of the draft Environmental Impact Statement. In addition, the Council has reviewed the Statement as it relates to the Council of Governments' concern with areawide planning and development.

Enclosed are the comments that were made on the draft Environmental Impact Statement.

The Council of Governments appreciates this opportunity to be of service to your agency.

Sincerely,


Robert D. Farley
Executive Director

Enclosure

cc: Mayor W. McNichols, Jr., COG Representative, City & Co. of Denver
Councilman I. Hook, COG Representative, City & Co. of Denver
H. Cook, Director of Public Works, City & Co. of Denver
A. Canter, Director, Denver Planning Office
L. LaPerriere, Director, Urban Resources Development Agency
P. Schmuck, Director, State Planning Division

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**Vice Chairman

COMMENTS ON EI/008-72

U. S. Mint Draft Environmental Impact Statement

DRCOG Staff: The DRCOG staff in general finds that the draft statement addresses and answers all issues in accordance with the National Environmental Policy Act.

The following comments relate primarily to the statements on the impact of the relocation of the U. S. Mint facilities in terms of: (1) those households currently located on the proposed site which will be required to relocate elsewhere; and (2) the Mint's present employees, particularly those of low- and moderate-income, whose residence-employment transportation pattern will be altered by the facility move.

There are two Federal Register citations regarding the location and relocation of federal facilities: (1) "Consideration of Socioeconomic Impact when Selecting Locations for Federal Buildings" -- FR, Volume 36, No. 231, Wednesday, December 1, 1971; and (2) "Procedures for Assuring Availability of Housing on Nondiscriminatory Basis for Low- and Moderate-Income Employees" -- FR, Volume 36, No. 239, Saturday, December 11, 1971. The intent of the two citations is to outline federal agency policy regarding the location and relocation of federal facilities and both the impact of such activities on current and projected federal employees, as well as the opportunities provided in such moves in furtherance of national housing goals and objectives in expanding the supply of low- and moderate-income housing available to federal employees involved in facility locations and relocations. The two citations are explicit as to the federal agency responsibilities in seeing that this intent is both pursued and achieved.

In view of the above there is a need for explicit "plans" regarding:

- (1) The relocation of the 20 families involved on the proposed site; and
- (2) The provision of alternative housing to both present and potential low- and moderate-income Mint employees, due to the relocation of the facility.

The substance of both plans would be a clear demonstration of sufficient availability of low- and moderate-income housing for both employees and relocatees.

The area in question is shown on the adopted DRCOG Regional Development Plan as commercial and services.

The comments should not be construed as critical of the Environmental Impact Statement itself, but only to outline an area of concern that appears to need further consideration. (September 7, 1972)

Denver Planning Office: (See the attached letter, dated September 19, 1972)

September 20, 1972

cjm

Very truly,
David R. Smith

Regional Transportation District

56 Steele Street
Denver, Colorado 80206
303/399-8140

September 25, 1972



Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

In response to your request, our review of the Draft Environmental Impact Statement for the proposed new Denver Mint has produced the following comments:

1. The name used in the report in reference to the public transportation agency should be corrected in all instances to read the "Regional Transportation District."
2. Section 2.2, beginning on page 5, should include a stronger statement concerning required coordination between site planning for the new Mint and planning for public transportation in the immediate vicinity, as well as within the entire metropolitan region. Such coordination may have a significant impact on employee and visitor traffic at the site, and site access. RTD has several planning proposals which have a direct relationship to the proposed new Mint location. We would be glad to discuss our proposals with you to begin to develop the necessary coordination.
3. The fact that the Department of Highways is also preparing to investigate a location for a new highway facility, the Market/Blake Parkway, in the immediate area, points out the need for total coordination between all agencies involved to assure consistency in overall planning.
4. With respect to public transportation, we see no adverse environmental affects from the proposed relocation of the Mint. We do feel that the opportunity to work together can permit the development of an optimum transportation connection to the mutual benefit of the Mint, the public transportation system, and the entire Denver region.

Please feel free to contact me at any time you wish to discuss the situation.

Yours very truly,

Harry L. Parrish, Jr.
Harry L. Parrish, Jr.
Executive Director

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NUMBER ONE

3100 EAST 60TH AVENUE • COMMERCE CITY, COLORADO 80022 • PHONE: 303-288-6613

WILLIAM E. KORBITZ, P. E.
MANAGER

FRED E. HENDRICKSON
HAROLD V. COOK
MARY B. O'DELL
WILLIAM E. KUHN

CHAIRMAN
CHAIRMAN PRO TEM
SECRETARY
TREASURER

August 10, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 W. Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft of the Environmental Impact Statement which you sent to us on August 4, 1972. As mentioned in the statement, the District is proposing to construct a sanitary interceptor sewer which will generally parallel the South Platte River on the west side. The design of this facility was in its final stages when information was received that the new mint may be located at the now proposed site. Design was, therefore, based on the location of existing roads and buildings.

Since this land is presently the property of the City and County of Denver, our contacts have been with the City Engineer. Plans for the sewer have been sent to him for review. Should a conflict exist between our present alignment and your plant facilities, we, along with our consulting engineer, would be happy to meet with you to discuss a possible modification.

Since our available tolerances on both grade and alignment are very close through this area, we would greatly appreciate the cooperation of your office and the City and County of Denver in working out a solution which

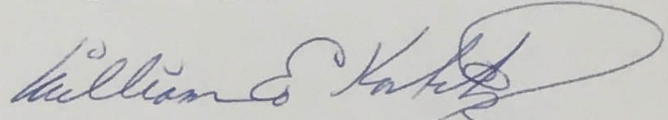
Mr. Frank W. Rhea

Page 2

August 10, 1972

will be to the benefit of all concerned. Our present plans call for this project to go under construction in early 1973; therefore, if any conflict exists, we would appreciate a response from you or the City in the near future.

Very truly yours,

A handwritten signature in dark ink, appearing to read "William E. Korbitz", with a large, sweeping loop at the end.

William E. Korbitz, P.E.
Manager

WEK:ble

cc - Jack Keller

Fred Hendrickson

Jack Bruce



L. Scott Tucker, Executive Director

OFFICE OF DIRECTOR
ROOM 30
1400 CLEVELAND PLAZA
DENVER, COLORADO 80202

September 19, 1972

August 25, 1972

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City of Aurora

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Engineer

David A. Curtis
Douglas County

181 E. 56TH AVENUE • DENVER, COLORADO 80216
TELEPHONE 534-0105

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

SUBJECT: Denver Planning Office review
of Draft Environmental Impact Statement
on new United States Mint

Dear Mr. Rhea:

This letter regards your request for comments you have regarding the environmental impact statement for the proposed new Denver Mint. The proposed mint is located in the South Platte flood plain of the South Platte. Planning is based on the closure of Chatfield as scheduled by the Corps in 1973 and flood proofing against the Standard Project flood. After Chatfield, the Intermediate Regional flood will be retained within the Platte channel and this aspect is covered in detail in the draft you provided.

One aspect that is not covered, however, is the drainage tributary to the site from the west. The site is located at the base of a drainage area of approximately 800 acres that is a tributary to the Platte. This area is highly developed and includes the Valley Highway. Site planning should recognize the tributary drainage. I point this out for your information and do not think it will provide any problems that can not be easily handled.

Sincerely,

L. Scott Tucker
L. Scott Tucker,
Executive Director



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

September 19, 1972

Mr. Robert Farley, Executive Director
Denver Regional Council of Governments
1776 South Jackson Street
Denver, Colorado 80210

ATTENTION: Duane Ebertowski

SUBJECT: Denver Planning Office review
of Draft Environmental Impact Statement
on new United States Mint

Dear Mr. Farley:

Thank you for the opportunity to review the Draft Environmental Impact Statement prepared by the Bureau of the Mint, Department of the Treasury related to the construction of the new United States Mint in the City and County of Denver. Our general reaction to the statement is that it satisfies the needs and addresses the issues that we understand are intended in the requirements for an Environmental Impact Statement. We are generally satisfied with the location of the Mint and the evaluation of the environmental issues involved, as described in this statement.

However, we would like to call to the attention of the drafter of this statement that there are a few corrections that we would like to see made, as follows:

1. On page 3, at the end of the fourth full paragraph, delete the words "combination residential and commercial building", and replace with the words "office building complex."
2. On page 4, first paragraph, second line "Denver Planning Commission's" should read "Denver Planning Office's". On the 4th line, insert "and" between "east" and "a Platte River Park" and insert a period after the phrase "(presently railroad yards)" and delete the remainder of that sentence.
3. On page 4, in the last paragraph, change "Denver Planning Commission" to "Denver Planning Office".
4. On page 6, in the first full paragraph, change "Denver Planning Commission" to "Denver Planning Office". Also, on page 6, under item c., change "The location of the proposed Market Street thoroughway" to "The location of the proposed Market-Blake Parkway" and under item d., change

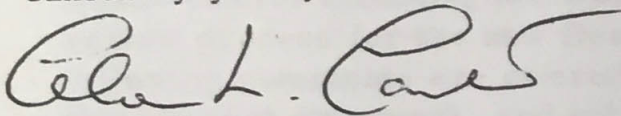
Mr. Robert Farley
September 19, 1972
Page 2

"The location of the proposed mass transit "People Mover" connecting downtown" to "The location of the proposed personalized rapid transit (PRT) "People Mover" connecting downtown" and in the same sentence, change the "Bears Stadium" to the "Mile High Stadium".

5. On page 6, delete item e. entirely and change item f. to a new item e.
6. On page 14, under item b. change the "Denver Planning Commission" to the "Denver Planning Office."

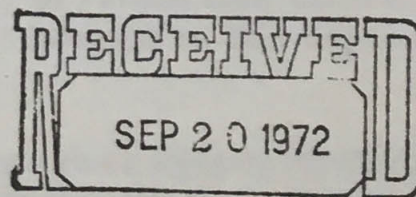
Again, thank you for the opportunity to review this Draft Environmental Impact Statement. We would be anxious to receive a copy of the final statement when it is prepared.

Sincerely yours,



Alan L. Canter
Director of Planning

ALC/AGA/jp



D. R. C. O. G.

JAMES L. OGILVIE
Secretary-Manager



Board of Water Commissioners

144 West Colfax Avenue Denver, Colorado 80202 Phone 222-5511

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August 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
U.S. Department of the Treasury
Bureau of the Mint, Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for including the Water Department in your information and review process for the new Denver Mint. As per your request, the following comments are offered in connection with development of your final impact statement, and subsequently in the development of your new Denver Mint.

First, I would like to address the problems of water facilities and supply. It may be in the best interest of the Mint and the Water Department if you would contact the Department's Marketing Section at the earliest possible date. Mr. P. K. Bryant of that section will be able to provide you information on policy and procedures for relocating and/or extending water mains, arranging for taps from mains, and the potential water supply available (such as rates of flow and pressures). Your plans and scheduling may be affected by construction of a water supply.

Secondly, I will send you, under separate cover, a copy of our 1971 Water Quality Report. I'm sure it will be of use to your process design consultants. I will appreciate the opportunity of reviewing the plans and specifications for the water pollution control system.

Third, the estimated quantity of water necessary for both industrial and domestic use, the quality and quantity of return flow directly to Platte River and periods of discharge are of interest to this department's successive use program.

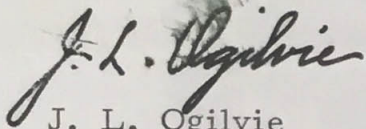
Finally, any discharge to the sanitary sewer system should be qualitatively summarized. The basic reason for this is for the benefit of Metropolitan Sewage District No. 1, who has to treat the sewage, and for the Water

Mr. Frank Rhea
August 18, 1972
Page 2

Department, who, in the near future, will develop a portion of this effluent as successive use water. We would also appreciate being informed of any additional parameters that may be placed upon our project by your proposed development, through changes in water quality.

I am sure that the new Mint would esthetically add to the area and wish you success in implementation of the project.

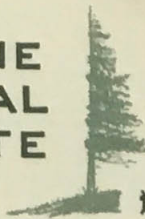
Sincerely,

A handwritten signature in dark ink, appearing to read "J. L. Ogilvie". The signature is written in a cursive style with a large, looping initial "J".

J. L. Ogilvie
Manager

JLO/ee

THORNE ECOLOGICAL INSTITUTE



1405 Broadway

~~XXXXXXXXXXXXXXXXXXXX~~

BOULDER, COLORADO 80302 (303) 443-~~4480~~

7325

August 30, 1972

Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Sir:

We have reviewed the draft environmental impact statement relating to the construction of the new U. S. Mint in Denver. We have kept our comments brief but I think they will suffice to show the area of interest:

1. The proposed location will increase air pollution from vehicles -- tourists as well as mint works -- in an area that already naturally serves as a settling basin for smog.
2. Is there an absolute guarantee that air pollution from smelting, metal work, et al will be eliminated by the devices proposed to be used? Have these devices been thoroughly tested under similar situations? It is our understanding that there are still technical problems to be solved.
3. It is possible that sewage waste contamination might occur to the South Platte River at a time of flooding through "back flushing" because the proposed new Mint building will be located on a flood plain and at or near the possible flood level at times.
4. We might suggest an operational stipulation to include continuous monitoring of all effluents to the South Platte River be conducted to assure no escape of heavy metals, trace elements, and acids to the river as the result of metal operations, handling, cleaning, washing down, etc.

TRUSTEES

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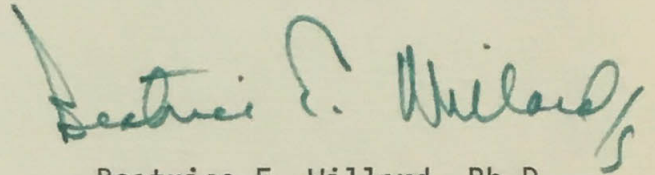
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MR. EDWIN THORNE
MRS. ELIZABETH C. TITUS
DR. GEORG TREICHEL

Page 2
August 30, 1972

Thank you very much for the opportunity to review this impact statement.

Sincerely,

A handwritten signature in dark ink, reading "Beatrice E. Willard". The signature is fluid and cursive, with a large, stylized "B" and "W".

Beatrice E. Willard, Ph.D.
President

BEW:sjs

THORNE
ECOLOGICAL
INSTITUTE



1405 Broadway
1229 UNIVERSITY AVE.

BOULDER, COLORADO 80302 (303) 443-4480 7325

August 9, 1972

Mr. Frank W. Rhea
Facilities Project Manager
The Denver Mint
320 W. Colfax
Denver, Colo. 80204

Dear Mr. Rhea;

Thank you for the copies of your Environmental Impact Statement for the new mint.

I appreciate the opportunity to comment on the draft, but must defer on this one, due to the pressures of time.

Sincerely,

Beatrice E. Willard, Ph.D.
President

Special Assistant to the
General Counsel

TRUSTEES

MR. V. PETER CLINE*
MR. H. STANLEY DEMPSEY*
DR. DON L. EICHER*
DR. JOHN W. MARR*
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MR. EDWIN THORNE
MRS. ELIZABETH C. TITUS
DR. GEORG TREICHEL



THE DEPARTMENT OF THE TREASURY
OFFICE OF THE GENERAL COUNSEL
WASHINGTON, D.C. 20220

August 28, 1972

*John
F. I. S.*

Mr. Frank W. Rhea
Facilities Project Manager
United States Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Frank:

Enclosed is a copy of a gratifying memorandum received from the pertinent staff member of CEQ concerning the draft environmental impact statement for the Denver Mint. However, the official public notice of CEQ on the statement is less favorable, as you will see from the enclosed copy of my response to the memorandum, which was cleared with Frank MacDonald. A copy of the CEQ official notice is also enclosed.

Otherwise, I have as yet heard nothing about the draft statement.

Sincerely yours,

Elting Arnold
Special Assistant to the
General Counsel

Enclosures - 3

**EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY**

722 JACKSON PLACE, N. W.

WASHINGTON, D. C. 20006

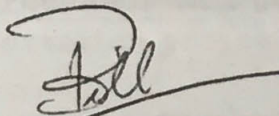
August 21, 1972

MEMORANDUM FOR MR. ELTING ARNOLD
DEPARTMENT OF THE TREASURY

The Council has reviewed the draft environmental impact statement for the proposed new Denver Mint prepared in compliance with Section 102(2)(C) of the National Environmental Policy Act. In general it is a well-written and useful document.

The only area where we suggest further attention be given is to possible future uses of the existing mint building. Because it is a monumental and architecturally valuable structure, efforts should be made to assure that it will continue to be used by the community after the Treasury operations are relocated in the new facilities. In this regard, I am enclosing a statement by the President released recently when he signed into law new provisions to facilitate the transfer of such structures to State and local authorities for continued use.

I hope these comments are useful in the preparation of the final impact statement.



William Matuszeski
Staff Member

Attachment

STATEMENT BY THE PRESIDENT

Although Jefferson reminded us that "the earth belongs to the living, not to the dead," the value of historical preservation can no longer seriously be challenged. We need to know where we have been if we are to understand where we are -- and who we are.

Although it is true that historical preservation of buildings may seem to many to have a low priority, we should not turn our backs upon these quiet, stately, authentic reminders of our heritage. As we look upon these structures we hear the voices of past heroes -- strengthening our resolve to create a future that will be worthy of them.

And although the GSA surplus property bill I am about to sign may appear to some not to be significant, I do sign it with a sense of deep significance. This is in fact one of the key initiatives for historic preservation that I presented to the Congress in my 1971 Message on the Environment. The bill will give us the tools we need to permit States and localities to receive title to surplus Federal structures of historic and architectural interest.

Until today, law has prevented the free transfer of Federal surplus buildings to the States or localities unless they were to be used as museums or for other non-revenue producing activities. Many States and cities simply could not afford to take title and maintain these buildings under such terms.

Under the new law, the States and localities will be able to use the Federal surplus buildings as centers for urban commerce and tourism. They will be able to preserve the historic buildings, to cherish them, and to use them as active facilities which will raise sufficient revenue to keep them well maintained. The buildings themselves can be living parts of the community, preserving their historic past not as a thing apart but as a vital presence. Any excess revenues will be used for parks, recreation and other local historic preservation projects.

There remain before the Congress a number of additional measures I have proposed to aid historic preservation. Among these are the National Land Use Policy Act, which will help States to exercise protective controls over historic buildings and districts; proposed changes in the Internal Revenue Code to provide tax benefits for the restoration and tax penalties for the destruction of historic structures; and a new program of loan guarantees through the Department of Housing and Urban Development for the restoration and rehabilitation of historic structures for residential purposes.

I urge the Congress to enact all these measures for the benefit of our American architectural and historic values -- and I sign the GSA surplus property bill with pride and satisfaction.

UNITED STATES GOVERNMENT

The Department of the Treasury
Washington, D.C.

Memorandum

TO : Mr. William Matuszeski
Staff Member
Council on Environmental Quality

FROM : Elting Arnold
Special Assistant to the General Counsel

SUBJECT:

DATE: August 28, 1972

Your memorandum of August 21, expressing essentially favorable comments on the draft environmental impact statement for the proposed new Denver Mint, is very much appreciated. However, I note that the comment of CEQ in the Federal Register for August 22 (p. 16890) is somewhat different since it says:

"The proposed site is on a flood plain, an incidence which would have serious implications if the Chatfield Dam on the South Platte River were not completed as scheduled. (20 pages) (ELR Order No. 05045) (NTIS Order No. EIS 72 5045D)."

I do not believe that we would agree that this observation correctly reflects page 7 of the impact statement, which I would read as indicating that there would be some problem but not a serious one. However, I am bringing it to the attention of the pertinent people in the Bureau of the Mint.

With regard to your second paragraph, I think you may be sure that the Treasury has the special merits of the existing Denver Mint very much in mind. In fact, the impact statement says, near the end of page 4: "The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver." On the other hand, it may be somewhat early to predict just what disposition of the existing Mint, consistent with its qualities, would be made, although as the statement itself indicates, there is a certain likelihood that transfer to the City and County of Denver would ultimately be regarded as the appropriate outcome. In this respect, the statement of the President enclosed with your memorandum will be kept very much in mind.



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

**COUNCIL ON ENVIRONMENTAL
QUALITY**

**ENVIRONMENTAL IMPACT
STATEMENTS**

Notice of Availability

Environmental impact statements received by the Council on Environmental Quality August 7 to August 11, 1972.

NOTE: At the head of the listing of statements received from each agency is the name of an individual who can answer questions regarding those statements.

16890

Dept. of the Treasury

Draft, August 9

U.S. Mint, Denver, Colo. The statement considers the construction of several buildings (totaling 700,000 square feet) comprising the new Denver Mint. The buildings will displace 4 businesses and 20 residences. The proposed site is on a flood plain, an incidence which would have serious implications if the Chatfield Dam on the South Platte River were not completed as scheduled. (20 pages) (ELR Order No. 05045) (NTIS Order No. EIS 72 5045D)

BRIAN P. JENNY,
Acting General Counsel.

[FR Doc.72-14165 Filed 8-21-72; 8:48 am]

AUG 28 1972

Dear Bob:

In response to your letter of August 21, I enclose a copy of procedures issued by this Department on July 30, 1971, for the preparation and coordination of environmental impact statements under the National Environmental Policy Act, which are presently effective. Consideration is being given to some amendments of the procedures, basically in accordance with suggestions made by the General Counsel of the Council on Environmental Quality in his circular memorandum of May 16, but these presumably would not affect the answer to your inquiry. The Internal Revenue Service has its own procedures, a copy of which is also enclosed.

Further enclosed is a copy of a "Checklist of Points for the Preparation of Environmental Impact Statements" issued in the Department on December 6, 1971, which provides on various matters guidance of a more detailed nature than that contained in the basic procedures. At page 5 of the Checklist the following appears as an environmental factor to be contemplated under the NEPA:

"--destruction of or adverse effects upon the national cultural heritage in the form of scenic beauty; wilderness areas, architecturally or historically important buildings, structures, and sites; and archaeological sites or deposits"

The interdisciplinary process which would be utilized by the Department in considering the impact of a proposed action on historical, archaeological, cultural and architectural resources is indicated in section 6 of the Departmental Procedures, which reads as follows:

"(a) The full resources of the Department should be tapped in developing the factual and analytic information and reference sources required in the statement. In the great majority of instances, however, the assistance of other agencies with legal jurisdiction or special expertise in the particular environmental impact area should be sought. See section 2(c) above, and

section 7 and Appendix II of the CEQ Guidelines which list the agencies to be consulted, with sublistings by legal jurisdiction or area of special expertise on environmental impacts."

Also pertinent to your inquiry is section 2(c), applicable to the initial decisions as to whether an impact statement is required, which provides:

"(c) Technical knowledge and thoughtful insight into possible environmental consequences are essential to effective screening of action decisions. If there is any doubt as to the possible environmental significance of any action, agencies with expertise in the area should be consulted. Agencies with special environmental expertise are listed in Appendix II of the CEQ Guidelines."

As you are undoubtedly aware, the CEQ Guidelines list your Council and the National Park Service as appropriate agencies to be consulted on "historic and archaeological sites," as well as the Department of Housing and Urban Development for such sites in urban areas. If one of the factors referred to in your letter appeared to be vitally involved in a matter being considered in an environmental impact statement, paragraph 6(a) would be followed through advance consultation with the appropriate agency, which in many cases would naturally be your Council. If the factor appeared to be more incidental, this Department might rest on the procedure for comment on draft environmental impact statements which appears in section 7 of the Procedures.

Regarding the third point in the catalogue contained in the attachment to your letter, I do not think there are any other general materials in this Department relevant to your inquiry. However, I would like to take this occasion to furnish you with a copy of the draft environmental impact statement which was filed with the Council on Environmental Quality on August 9 concerning the Construction of the New United States Mint - Denver, Colorado. In the filing of this statement the Department has been well aware of the special qualities of the existing Denver Mint, as is evidenced by the following sentence on page 4:

"The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver."

Although the question of the disposition of the present Mint is not necessarily involved in the determination as to the construction of the new Mint, we would welcome any comments you may have now and would, of course, intend to consult your agency at such time as a concrete decision on the existing Mint became pertinent.

Sincerely yours,

(Sgd.) Bob Fredlund

Robert R. Fredlund
Director, Administrative Programs

Mr. Robert R. Garvey, Jr.
Executive Secretary
Advisory Council on Historic
Preservation
Suite 430
1522 K Street, N. W.
Washington, D. C. 20005

Enclosures - 4

PRESS KIT

Signing Ceremony

THE NEW UNITED STATES MINT AT DENVER



3:00 p.m.

May 24, 1973

Office of the Mayor
City and County Building
Denver, Colorado

RICHARD NIXON
President of the United States

MARY T. BROOKS
Director of the Mint

ARTHUR F. SAMPSON
Administrator
General Services Administration

DISTINGUISHED GUEST LIST

FOR

SIGNING CEREMONY

Office of the Mayor
City and County Building
Denver, Colorado

The Honorable William H. McNichols
Mayor of the City and County of Denver

The Honorable Mary T. Brooks
Director of the Mint
United States Treasury

Michael J. Norton
Regional Administrator
United States General Services Administration

Mr. Frank W. Rhea
Facility Project Manager
Bureau of the Denver Mint

Gregory Cavanagh
Regional Commissioner, PBS
GSA - Region 8

David L. Gess
Project Manager
New Denver Mint
GSA - Region 8

John L. Mathews
Regional Counsel
GSA - Region 8

David G. Harrison
Chairman
Denver Federal Executive Board

Architects

Irvan F. Mendenhall
President
DMJM (Daniel, Mann, Johnson & Mendenhall)
3250 Wilshire Blvd.
Los Angeles, California

Walton B. Colwell, Jr.
Officer
DMJM - Phillips - Reister
Suite 700
910 - 15th Street
Denver, Colorado

Electrical-Mechanical Engineers

Alvin D. Swanson
President
Swanson - Rink and Associates
1640 Boulder Street
Denver, Colorado 80211





News Release

UNITED STATES GOVERNMENT
GENERAL SERVICES ADMINISTRATION

Region 8 - Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming - Federal Center, Denver, Colorado 80225 - (303) 234-4171

RELEASE UPON RECEIPT

8AB-74

May 24, 1973

New Mint of the United States at Denver

In ceremonies held today in the office of Mayor McNichols, the City and County of Denver and the Department of the Treasury, Bureau of the Mint, through the United States General Services Administration formalized an agreement in which the City and County of Denver agreed to convey title to approximately 38 acres of land located on the west bank of the South Platte River, between 18th Avenue and Speer Boulevard, to the United States for use as the site of the new Mint of the United States at Denver. According to the agreement, the City and County of Denver must deed the property to the United States on or before August 1, 1974 for the agreed purchase price of 1.5 million dollars.

Participating in the signing ceremony for the City and County of Denver was Mayor William H. McNichols. The Bureau of the Mint was represented by Mrs. Mary T. Brooks, Director of the Mint, Washington, D.C. Signing on behalf of the General Services Administration was Mr. Michael J. Norton, Regional Administrator of GSA Region 8, Denver, Colorado.

Selection of the Platte River site was the product of an extensive joint study by the Treasury Department and the General Services Administration. The selected site will result in a structure which will meet the pressing future needs of the United States for coin production and will create a favorable socio-economic and environmental impact upon the City and County of Denver. The reclamation



News Release

UNITED STATES GOVERNMENT
GENERAL SERVICES ADMINISTRATION

Region 8 - Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming - Federal Center, Denver, Colorado 80225 - (303) 234-4171

-2-

and beautification of the Platte River area by the new Mint complex will form the hub for Denver's proposed Platte River Development Project. The proposed project calls for a Platte River Park directly across the river from the new Mint site, a sports complex to the west, and extension of the Auraria Educational Complex to the east.

Completion of the Mint will add approximately 400 new jobs to the present Mint work force of 400 persons. Adequate low and medium priced housing is available to new Mint employees.

The new Mint building complex will provide Treasury with an estimated 700,000 square feet of space and a production capacity of 7.7 billion coins per year by 1980. The present Mint has a capacity of 4 billion coins per year.

It is anticipated that the new building complex will consist of high-bay, one-story buildings, combined with multi-story administrative buildings, and will incorporate the newest and most efficient methods of air, water and noise pollution control. Construction costs are presently projected to be 25 million dollars and an additional 25 million dollars will be for needed equipment.

The following tentative construction schedule is anticipated: design completion by August 1975; construction completion by mid 1978; equipment procurement and installation by late 1978. Full occupancy and production is scheduled for 1980.

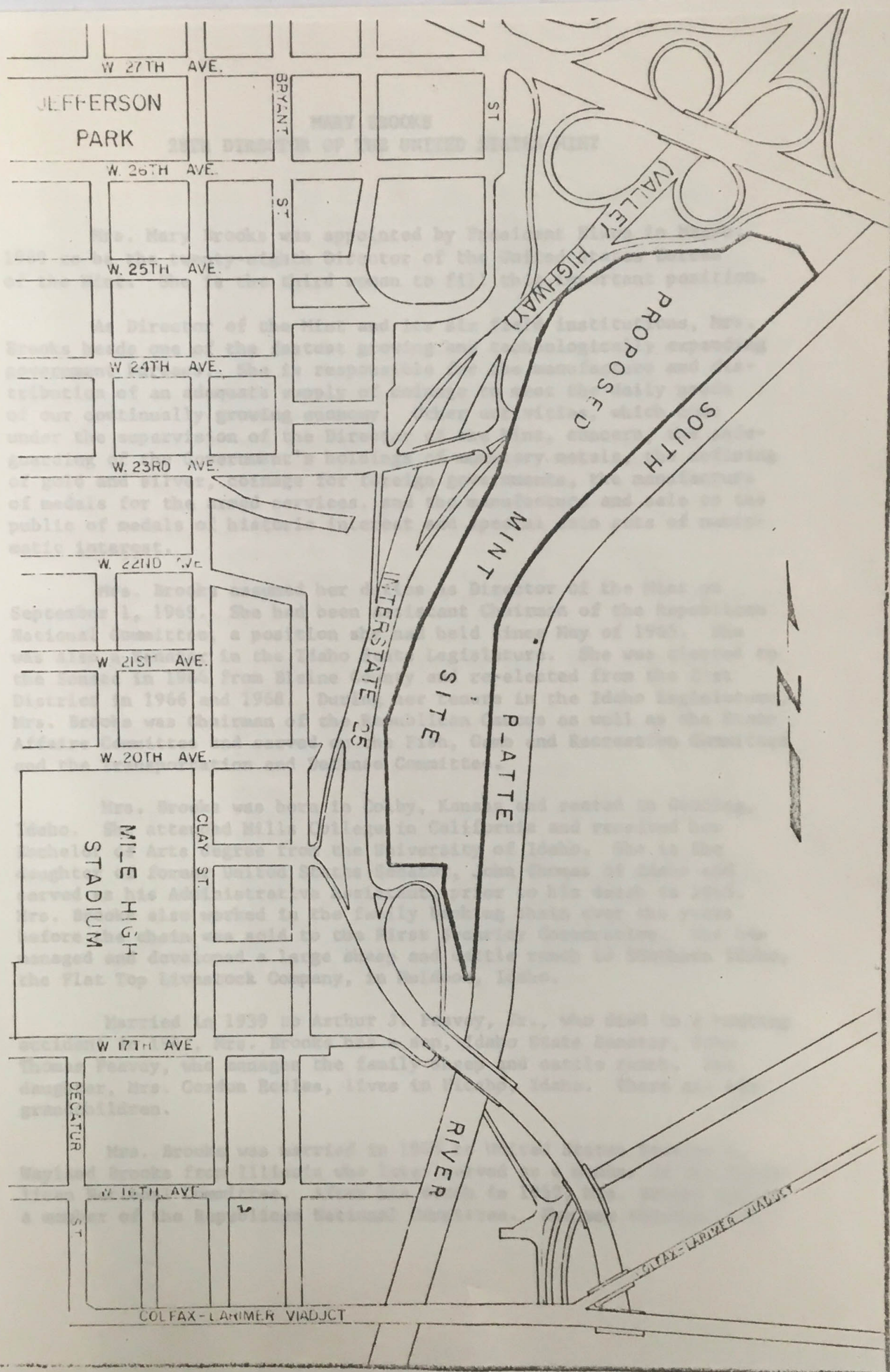
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VICINITY MAP

1"=600'



MARY BROOKS
28TH DIRECTOR OF THE UNITED STATES MINT

Mrs. Mary Brooks was appointed by President Nixon in March, 1969 to be the twenty-eighth Director of the United States Bureau of the Mint. She is the third woman to fill this important position.

As Director of the Mint and its six field institutions, Mrs. Brooks heads one of the fastest growing and technologically expanding government bureaus. She is responsible for the manufacture and distribution of an adequate supply of coinage to meet the daily needs of our continually growing economy. Other activities, which come under the supervision of the Director of the Mint, concern, the safeguarding of the Government's holdings of monetary metals, the refining of gold and silver, coinage for foreign governments, the manufacture of medals for the armed services, and the manufacture and sale to the public of medals of historic interest and special coin sets of numismatic interest.

Mrs. Brooks assumed her duties as Director of the Mint on September 1, 1969. She had been Assistant Chairman of the Republican National Committee, a position she had held since May of 1965. She was also a Senator in the Idaho State Legislature. She was elected to the Senate in 1964 from Blaine County and re-elected from the 21st District in 1966 and 1968. During her tenure in the Idaho Legislature, Mrs. Brooks was Chairman of the Republican Caucus as well as the State Affairs Committee and served on the Fish, Game and Recreation Committee and the Transportation and Defense Committee.

Mrs. Brooks was born in Colby, Kansas and reared in Gooding, Idaho. She attended Mills College in California and received her Bachelor of Arts degree from the University of Idaho. She is the daughter of former United States Senator, John Thomas of Idaho and served as his Administrative Assistant, prior to his death in 1945. Mrs. Brooks also worked in the family banking chain over the years before the chain was sold to the First Security Corporation. She has managed and developed a large sheep and cattle ranch in Southern Idaho, the Flat Top Livestock Company, in Muldoon, Idaho.

Married in 1939 to Arthur J. Peavey, Jr., who died in a hunting accident in 1941, Mrs. Brooks has a son, Idaho State Senator, John Thomas Peavey, who manages the family sheep and cattle ranch. Her daughter, Mrs. Gordon Eccles, lives in Picabo, Idaho. There are six grandchildren.

Mrs. Brooks was married in 1945 to United States Senator C. Wayland Brooks from Illinois who later served as a member of the Republican National Committee. After his death in 1957, Mrs. Brooks became a member of the Republican National Committee. She was elected Vice

Chairman of the Committee on July 29, 1960 and was Official Hostess to the Republican National Convention in Chicago in 1969. She served as Vice Chairman of the Committee on Big City Politics under the chairmanship of Ray Bliss in 1961. After her resignation from the Republican National Committee in 1963, she returned to Idaho to manage the ranch until her election to the Idaho Senate.

During 1971-72 Mrs. Brooks served as a member of the President's Commission on School Finance. She is also a member of the Coins and Advisory Panel, American Revolution Bicentennial Commission.

Her present and past memberships in civic, social and political organizations include: Kappa Kappa Gamma, AAUW, American Legion Auxiliary, Board of the Idaho Youth Ranch, Advisory Committee on Women in the Services, Vice Chairman of her Red Cross District, Mental Health Board, Immigrant Service League, Illinois Children's Home and Aid, Light House for the Blind, Arden Shore Association, and Board of Illinois Federation of Republican Women, Board Member of the American Newspaper Women's Club and the Advisory Council of the International Eye Foundation.

Since taking office in September of 1969, Mrs. Brooks has received the following awards:

- | | |
|------|--|
| 1969 | Elected New York Women's National Republican Club's Woman of the Year; |
| 1970 | Voted Idaho's Woman of the Year; |
| " | Elected to University of Idaho's Hall of Fame; |
| 1972 | Presented the Exceptional Service Award from the Treasury Department; |
| " | Presented the "I Left My Heart In San Francisco" Award from the San Francisco Convention & Visitors Bureau for her efforts in the restoration and preservation of the Old Mint Building; |
| 1973 | Awarded the Certificate of Merit from the California Historical Society. |

MICHAEL J. NORTON

Michael J. Norton, 34, is the Regional Administrator for the General Services Administration's Region 8 comprising the States of Colorado, Wyoming, Utah, North and South Dakota, and Montana.

Before receiving his appointment as Regional Administrator, Mr. Norton served as Special Assistant to the Deputy Administrator of the General Services Administration in Washington, D.C. In that capacity, Mr. Norton served as executive assistant in the areas of policy development and implementation.

Mr. Norton received an A.B. from Colgate University in 1960 and a J.D. from American University in 1968.

Mr. Norton joined the General Services Administration in April 1969 as Executive Assistant to the Assistant Administrator. He became Director of Congressional Affairs in November 1969. Mr. Norton also served as Legislative Officer at the Department of Agriculture.

Prior to his government service, Mr. Norton served in private industry, including work with the National Milk Producers Federation in Washington.

Mr. Norton is affiliated with the Virginia State Bar Association, the American Bar Association, Phi Kappa Psi Fraternity, and Delta Theta Phi Legal Fraternity. He serves on the Policy Committee of the Denver Federal Executive Board.

Mr. Norton was born in Brookings, South Dakota. Mr. Norton and his wife, the former Sharon Lea White, of Borger, Texas, have two children, Jeff and Lori. They presently reside in Lakewood, Colorado.

Excerpt from

THE MINT STORY

(A publication of the Bureau of the Mint)

History

of the

UNITED STATES MINT AT DENVER

Denver Mint

Gold was first discovered in 1858 in what is now the State of Colorado, on the Platte River, near the City of Denver. For some years mining in Colorado was chiefly from placer claims which were deposits formed by water currents in river beds. Lode gold was found, however, near present Central City, Colorado, on May 6, 1859, and other discoveries followed.

When the California Gold Rush of '49 lost its impetus with the declining production of mines in California, miners turned their attention to Denver City where, within a few years, a small village of cottonwood log cabins began to emerge. This town became an "outfitting" point for miners. Recognizing a need for a circulating medium, much as necessity is the mother of invention, several firms in Colorado organized themselves as private mints. They melted "raw" gold in the form of dust and nuggets, all of which contained an appreciable amount of silver, and formed it into what are now known as Pikes Peak coins. These were much like some of the gold coins struck privately in California some years previously.

The Congress, in January, 1862, received a proposal from the Treasury Department that a branch mint be established at Denver, Colorado, for gold coinage. As indicative of the need they were informed that in the two preceding years the private mint of Clark, Gruber and Co. had turned out gold coins to the extent of \$120,000. The Government bought the Clark-Gruber plant in the fall of 1862, for the sum of \$25,000.

In the early days of Denver, when Indian raids were anticipated, the Mint building was used as a place of refuge for women and children, it being the town's most substantial structure. "The hostility of the Indian tribes along the routes, . . ." was one of the reasons given by the Director of the Mint for the Denver plant not being able to assume its position as a Branch Mint.

Not to achieve its destiny as a Mint until some years later, the Denver Mint opened its doors in September, 1863 as an Assay Office. Its activities were restricted to melting and stamping bullion brought in by miners without refining. Under the regulations which were prescribed, the Mint was to accomplish this task "within a day or an hour" after it was received. The bars were to be stamped as to the "fineness" (amount of gold and silver contained) and weight. Also stamped on the bars was a device bearing the American eagle and around it the words "U. S. Branch Mint, Denver."

By 1867 the miners had exhausted, to a large extent, the rich beds of placer gold appearing in the streams, and the Assay Office at Denver had little business while miners turned their attention to "lode" mining, uncovering underground veins of ores having a high percentage of gold and silver. It was found, however, that to crush and pulverize these ores and to extract the precious metals required complicated apparatus and skilled labor, as well as rail transportation, all of which was lacking to a large extent.

Heartbroken as they were to see the Union Pacific railroad pass them to the North, a courageous group of Colorado citizens banded together. Through their enterprise a rail line was built in 1870 which connected Denver with Cheyenne, Wyoming, tying them in with the economic life of the nation, from coast to coast.

In the late nineteenth century Colorado felt the effect of an acceleration in silver mining because of Government purchasing programs. When they were terminated, the abrupt reduction in silver output was offset by the rise of the great gold camp at Cripple Creek, Colorado.

The Clark-Gruber plant which the Government had used continuously began to deteriorate and in 1877 was reported as being so dilapidated as to be considered unsafe.

Hopes for a branch mint status were again kindled, when on February 20, 1895 the Congress provided for the establishment of a Mint at Denver for the coinage of gold and silver. A \$500,000 appropriation by the Congress provided that until it could become a Mint in accordance with law it would have to operate as an Assay Office.

On April 22, 1896, a site was purchased at a cost of about \$60,000. In the meantime, the deposit activity at the Denver Mint stepped up considerably. The source of the deposits was principally the mines of Arizona, New Mexico, Colorado and Utah. In 1895 the aggregate value of gold and silver deposited annually was in excess of \$5.6 million.

Plans for the new Mint developed slowly, but surely. Moving day took place on September 1, 1904 when the Mint transferred its operations from the historic Clark-Gruber building at Sixteenth and Market Streets to the handsome Gothical Renaissance structure at West Colfax and Evans Streets.

Coinage organization was effected by the naming of officials for the superintendency and various departments on October 15, 1904. Earlier it had been the practice for Denver to send its bullion deposits to Philadelphia for parting and refining. Bullion shipments to Philadelphia ceased December 31, 1904.

The new structure, viewed from the street, provided two stories above ground. Actually it had five floors. It was 175 feet long and 100 feet wide.

The stone facing of the building is Colorado granite, up to and including the water table. The Arkins granite above that, to the cornice, which required large slabs, was procured in Maine. Tennessee marble forms the window trimmings; and the marble used in the interior finish was obtained in Vermont.

The decorations of the main corridor on the first floor, the mezzanine floor, and the second floor were completed in 1909 under the direction of John Gibson, a member of an old Philadelphia firm. This firm also furnished the three mural paintings in the area above the cornice inside the main vestibule. They are the work of an Italian named Vincent Adriente who worked under the supervision of the celebrated mural artist Edwin Howland Blashfield, of New York City. The paintings are purely symbolic and typify Commerce, Mining and Manufacturing.

The Great Seal of the United States, in the form of a large metal casting, was placed in the center of the vestibule floor. In the summer of 1961 this seal had worn so smooth it was considered unsafe and was replaced by a mosaic replica.

The new Mint was equipped with all the latest methods and machinery, the coinage apparatus having been built at Philadelphia where a large part of the machinery used by the Mints was made.

In its first year of operation the Coining Room turned out gold coin valued at \$23.8 million, and subsidiary coin, halves, quarters and dimes, amounting to \$3.2 million.

By Act of Congress, the Mint has had authority since 1874 to strike coins for friendly foreign governments. In 1906 the Denver Mint started its first production of foreign coinage -- 4.8 million five peso gold pieces for the Government of Mexico.

The Mint Act of 1873, which codified all existing mint laws, had restricted the manufacture of nickels and cents to the Mint at Philadelphia. At the time that act was passed few if any of these coins were in use in the West, although by legislation in 1906 Congress gave recognition to the fact that they were then in circulation all over the country. The Secretary of the Treasury was then authorized to direct the coinage of nickels and cents at any of the Mints. Minor coinage started at the Denver Mint in 1911, the production of cents that year amounting 12.6 million pieces.

It has always been the practice in the United States to conduct refineries in connection with coinage operations, thus being enabled to receive crude bullion. The installation of a refinery at the Denver Mint in 1906 was itself as momentous as its commencement of coinage. In its first six months of operations the new Denver refinery turned out refined gold and silver valued at \$32 million. Operating through the years, it has contributed substantially to the total output of refined gold and silver of the Mint.

In 1937 an addition was made to the Denver Mint, covering an area of approximately 6,000 square feet and consisting of a basement and two stories. The old building was remodeled and 10 coining presses, with back-up equipment, were installed.

In October, 1945, ground was broken for a three story addition, 161 feet long by 96 feet wide. The cost of this addition was over a million and a half dollars. The new wing was built to house modern "brass mill" melting and rolling equipment. The rolling system and equipment, designed by one of the foremost rolling mill engineering firms in the nation, was engineered to process a bronze coinage ingot weighing 420 pounds.

Comments on

Reels

S. Platte File

Comments on Fred - S. P. Latta file

✓

So Platte.

JAMES L. OGILVIE
Secretary-Manager



Board of Water Commissioners

144 West Colfax Avenue Denver, Colorado 80202 Phone 222-5511
COMMISSIONERS

WILLIAM G. TEMPLE, President JOHN A. YELENICK, 1st Vice-President
ANDREW HORAN, JR., A. ASBORNO CHARLES F. BRANNAN

March 13, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Ave.
Denver, Colorado 80204

*Bill
Ken Miller*

Dear Mr. Rhea:

Thank you for sending a final Environmental Impact Statement for the proposed new Denver Mint to this Department for final review and comment.

The Statement has now been reviewed by Water Department Staff. In my letter to you dated August 18, 1972, which is included in Appendix C of the Statement, I requested information concerning service and supply to the new site, proposed wastewater quality standards, quality and quantity of water necessary for both industrial and domestic use and finally the quality and quantity of estimated return flow to the Platte River and to the Sanitary Sewer.

I will appreciate receiving information on the above subjects at your earliest convenience. This information is absolutely necessary if this Department is to provide proper service to the new site.

If I can be of assistance to you, please feel free to contact this office at anytime.

Sincerely,

J. L. Ogilvie
J. L. Ogilvie
Manager

JLO/ee

KEN MILLER - ASST TO MANAGER

T.R. WHITTAKER - CHIEF OF ENG.

JACK DAVIS - HYDRAULIC ENG.

JOHN SWENSON - WATER SALES ADMIN

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$$(15.0)$$

MdC - Cooling

Hot Roll - Quench



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

February 12, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Subject: Denver Planning Office Review of Final Environmental Impact Statement on New United States Mint

Dear Mr. Rhea:

Thank you for the opportunity to review the Final Environmental Impact Statement relating to the construction of the new United States Mint in the City and County of Denver.

The final statement adequately incorporates the suggested draft corrections we requested in our previous letter dated September 19, 1972. Accordingly, the Denver Planning Office position with regard to the Final Environmental Impact Statement is that our general comments at this stage can be placed in Category I: General Agreement/Lack of Objection.

Following are the additional comments generated during staff review of the Final statement:

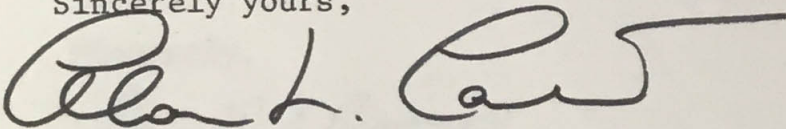
1. The overriding plus factor in relocating the Mint is the positive impact it is expected to have on the redevelopment of the Central Platte Valley, and the improvement in land use to one that can make itself compatible with the floodplain. The fact that 20 families are to be moved out of the area is a decided benefit in terms of their own personal safety and well-being.
2. The Denver Planning Office is impressed with the Treasury Department plans to provide adequate flood proofing measures for the safety and welfare of the Mint and its employees. Our staff would only reiterate that the facilities with the highest flood damage potential should be situated at the highest elevations, and those with the least damage potential at the lowest elevations.

Mr. Frank Rhea
February 12, 1973
Page Two

3. Facility design should include the necessary air pollution control equipment required to meet existing and proposed air pollution emission standards and regulations. It should be noted that the State of Colorado will also be requiring the monitoring of stack emissions and submission of period reports.
4. It is recommended that measures be taken during the construction period to prevent soil erosion and sediment deposition in the South Platte River. Temporary catchment basins can be used to prevent erosion and the resultant increase in turbidity of the river.
5. Vector control will be improved by the proposed redevelopment; however, staff suggests that efforts to destroy rats and vermin on the site are much preferable to driving them elsewhere in the neighborhood.
6. A closed-loop system of water use should be investigated to prevent excessive thermal discharges into the South Platte River.

Again, let me say, the Denver Planning Office appreciates this opportunity to review and comment upon the Final Environmental Impact Statement on the new United States Mint. Let us know if we may provide any additional assistance.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Alan L. Canter", with a long horizontal stroke extending to the right.

Alan L. Canter
Director of Planning

ALC/WJW/kc
Enclosure

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

P. O. Box 17107, Denver, Colorado 80217

March 7, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Soil Conservation Service has reviewed the final environmental impact statement for the construction of the New United States Mint - Denver, Colorado.

The statement is well prepared and should provide useful information to the decision makers involved in the project.

Again, let me thank you for the opportunity to review and comment.

Sincerely,

Donald C. Burdick
acting

M. D. Burdick
State Conservationist



P. O. Box 17107, Denver, Colorado 80217

March 7, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Soil Conservation Service has reviewed the final environmental impact statement for the construction of the New United States Mint - Denver, Colorado.

The statement is well prepared and should provide useful information to the decision makers involved in the project.

Again, let me thank you for the opportunity to review and comment.

Sincerely,

M. D. Burdick
State Conservationist

STATE DEPARTMENT OF HIGHWAYS

CHAS. E. SHUMATE

EXECUTIVE DIRECTOR

DIVISION OF HIGHWAYS
LAURENCE C. BOWER
CHIEF ENGINEER

STATE OF COLORADO



COLORADO STATE PATROL
COL. C. WAYNE KEITH
CHIEF

4201 EAST ARKANSAS AVENUE • DENVER, COLORADO 80222 • (303) 757-9011

March 9, 1973

Mr. Frank W. Rhea,
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Attention: Mr. H. Frost, Jr.

Dear Mr. Rhea:

Your letter of February 2, 1973, which submitted a final environmental impact statement for the proposed new Denver Mint is appreciated.

This Division does not find anything objectionable in the environmental statement and has no additional comments.

Very truly yours,

CHAS. E. SHUMATE
Executive Director

By

A handwritten signature in cursive script, appearing to read 'L. C. Bower', is written over the printed name and title.
L. C. BOWER
Chief Engineer

LCB/sms

cc: C. E. Shumate-E. N. Haase-A. Zulian
R. E. Heathcote
T. M. Cox



OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. John A. Green
Regional Administrator
Environmental Protection Agency
Region VIII
1860 Lincoln Street, Suite 900
Denver, Colorado 80203

Dear Mr. Green:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



Keep Freedom in Your Future With U.S. Savings Bonds



OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Administrator
Environmental Protection Agency
401 M Street Southwest
Washington, D. C. 20024

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to your Denver Regional Office.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. M. D. Burdick
State Conservationist
U. S. Department of Agriculture
Soil Conservation Service
P. O. Box 17107
Denver, Colorado 80217

Dear Mr. Burdick:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of Agriculture in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Secretary of Agriculture
Independence Avenue
12th & 14th Southwest
Washington, D. C. 20250

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Forest Service and the Soil Conservation Service, Rocky Mountain Region.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. W. J. Lucas
Regional Forester
U. S. Department of Agriculture
Forest Service, Rocky Mountain Region
Denver Federal Center, Building 85
Denver, Colorado 80225

Dear Mr. Lucas:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of Agriculture in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Secretary of Commerce
Attention: Mr. Sidney R. Galler, Deputy Asst.
Secretary for Environmental Affairs
Washington, D. C. 20230

Dear Mr. Galler:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. R. G. Burnett, P.E.
Chief, Engineering Division
Department of the Army
Omaha District, Corps of Engineers
7410 U. S. Post Office & Court House
Omaha, Nebraska 68102

Dear Mr. Burnett:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Office of the Chief of Engineers, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Director of Civil Works
Office of the Chief of Engineers
Forrestal Building
Washington, D. C.

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Omaha District Engineer.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Regional Administrator
Attention: Mr. Michael T. Kastanek,
Asst. Regional Administrator
Department of Housing & Urban Development
Federal Building
19th & Stout Streets
Denver, Colorado 80202

Dear Mr. Kastanek:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of Housing and Urban Development in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Secretary of Housing and Urban
Development
451 Seventh Southwest
Washington, D. C. 20410

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Office of your Denver Regional Director.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. Harry R. Woodward
Director, Division of Wildlife
6060 Broadway
Denver, Colorado 80216

Dear Mr. Woodward:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of the Interior, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

U. S. Department of the Interior
Attention: Mr. D. P. Shoup, Field
Representative
Missouri Basin Region
Denver Federal Center, Building 67
Denver, Colorado 80225

Dear Mr. Shoup:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of the Interior, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Secretary of the Interior
C Street
18th & 19th Northwest
Washington, D. C. 20240

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Denver Offices of the Division of Wildlife and Missouri Basin Region.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. W. H. Baugh
Regional Federal Highway Administrator
U. S. Department of Transportation
Region Eight
Denver Federal Center, Building 40
Denver, Colorado 80225

Dear Mr. Baugh:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of Transportation, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. Robert R. Garvey, Jr.
Executive Secretary
Advisory Council on Historic
Preservation
1522 K Street Northwest
Suite 430
Washington, D. C. 20005

Dear Mr. Garvey:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosures



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. Samuel R. Martinez
Regional Director
Office of Economic Opportunity
Federal Building
1961 Stout Street
Denver, Colorado 80202

Dear Mr. Martinez:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Office of Economic Opportunity, Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Director, Colorado State Division of
Commerce and Development
Attention: Mr. William C. Hacker, Director
Community Development
600 State Capitol Annex
Denver, Colorado 80203

Dear Mr. Hacker:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Secretary of Health Education & Welfare
330 Independence Avenue Southwest
Washington, D. C. 20201

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to your Denver Regional Office.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



Keep Freedom in Your Future With U.S. Savings Bonds

February 2, 1973

Regional Director
Department of Health Education & Welfare
Federal Building - Courthouse, Room 10021
1961 Stout Street
Denver, Colorado 80202

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Department of Health Education and Welfare in Washington, D. C.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Dr. Roy L. Cleere
Director, Colorado State Department of
Health
4210 East 11th Avenue
Denver, Colorado 80220

Dear Doctor Cleere:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. Charles E. Shumate
Executive Director
State Department of Highways
4201 East Arkansas Avenue
Denver, Colorado 80222

Dear Mr. Shumate:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. Stephen H. Hart
State Liaison Officer
State Historical Society of Colorado
Colorado State Museum
200 Fourteenth Avenue
Denver, Colorado 80203

Dear Mr. Hart:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. Robert D. Farley
Executive Director
Denver Regional Council of
Governments
1776 South Jackson Street - Suite 200
Denver, Colorado 80210

Dear Mr. Farley:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. Harry L. Parrish, Jr.
Executive Director
Regional Transportation District
56 Steele Street
Denver, Colorado 80206

Dear Mr. Parrish:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

OFFICE OF
DIRECTOR OF THE MINT

Secretary of Transportation
400 Seventh Southwest
Washington, D. C. 20590

Dear Sir:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint. Copies of the Final Statement are being submitted this date to the Denver Regional Federal Highway Administrator.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. William Korbitz
Manager, Metropolitan Denver Sewage
Disposal District Number One
3100 East 60th Avenue
Commerce City, Colorado 80022

Dear Mr. Korbitz:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. L. Scott Tucker
Executive Director
Urban Drainage & Flood Control
District
181 East 56th Avenue
Denver, Colorado 80216

Dear Mr. Tucker:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. Alan L. Canter
Director of Planning
City and County of Denver
1445 Cleveland Place, Room 300
Denver, Colorado 80202

Dear Mr. Canter:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. James L. Ogilvie
Manager, Board of Water Commissioners
144 West Colfax Avenue
Denver, Colorado 80202

Dear Mr. Ogilvie:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Dr. Beatrice E. Willard
President
Thorne Ecological Institute
1405 Broadway
Boulder, Colorado 80302

Dear Doctor Willard:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Dr. Beatrice E. Willard
President
Thorne Ecological Institute
1405 Broadway
Boulder, Colorado 80302

Dear Doctor Willard:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1975

Mr. Felix L. Sparks
Director
Colorado Water Conservation Board
1845 Sherman
Denver, Colorado 80210

Dear Mr. Sparks:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220
February 2, 1973

Mr. Richard Brown
Director, Colorado Division of
Planning
1575 Sherman Street
Denver, Colorado 80203

Dear Mr. Brown:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mr. Roger Hansen
Executive Director
Rocky Mountain Center on Environment
4260 East Evans Avenue
Denver, Colorado 80222

Dear Mr. Hansen:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

February 2, 1973

Mrs. Clifford Gobble
President
Colorado Federation of Women's Clubs
1726 Champa Street
Denver, Colorado 80212

Dear Mrs. Gobble:

Submitted herewith is a Final Environmental Impact Statement required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

Any comments you might have regarding this project should be submitted to the Bureau of the Mint at the address listed below.

Sincerely yours,

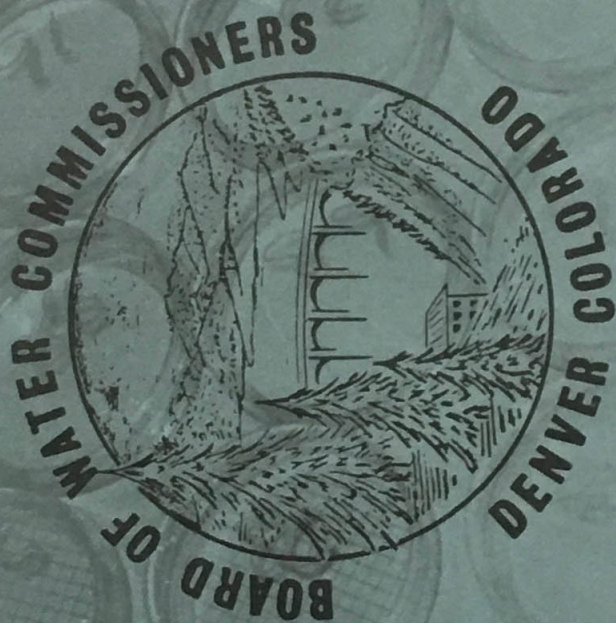
FRANK W. RHEA
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Enclosure



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WATER QUALITY REPORT...1971

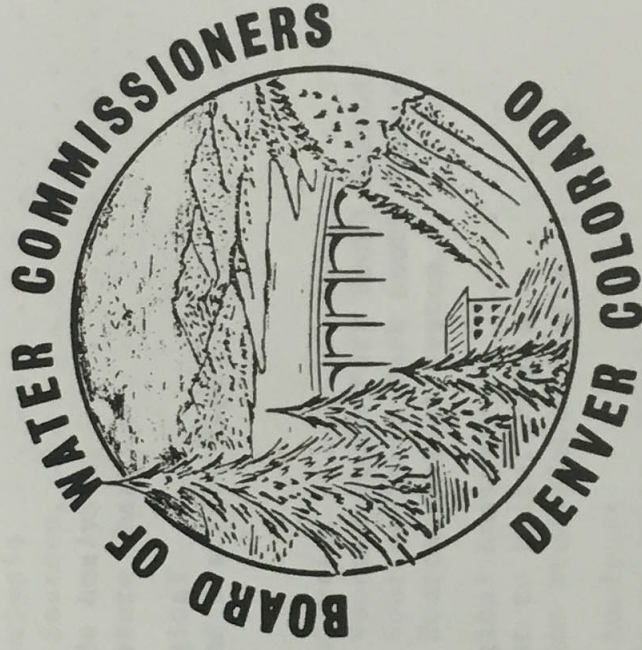


YEAR ENDING DECEMBER 31, 1971

WATER QUALITY REPORT.....1971

K. J. MILLER.....Sanitary Engineer

J. C. DICE.....Quality Control Engineer



J. L. OGILVIE
Secretary - Manager

M. E. BARBER
Chief of Operations

C. E. C. CARLSON
Chief of Plant

YEAR ENDING DECEMBER 31, 1971

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY
WATER QUALITY REPORT - 1971

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DENVER BOARD OF WATER COMMISSIONERS
 QUALITY CONTROL LABORATORY
 WATER QUALITY REPORT - 1971

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INTRODUCTION

This report describes and summarizes the work performed by the Quality Control Section of the Denver Board of Water Commissioners for the year 1971.

The purpose of this report is to inform the Board and other interested parties as to the quality of the water supply as served to the people of Denver. It also provides exchange information with other water utilities and public health agencies, local, state, and federal.

Mr. William R. Van Nattan, the Quality Control Engineer at the beginning of the year passed away in October. Following is the list of the personnel in the Quality Control Section whose dedication and professional experience continued the program for the remainder of the year and whose valuable functions contributed to this report:

Chemist	-	Clair Farnsworth
Microbiologist	-	Marsha Heinig
Technicians	-	Jack F. Erhard
		William A. Miller
		Andrew C. Nielsen
		Robert L. Stevens
		John R. Akin
		Brian A. Nelsen
Secretary	-	Barbara J. May
Reclamation Engineer	-	Richard D. Heaton

Cover: Microbiological plates with membrane filters in stages of preparation.

DENVER BOARD OF WATER COMMISSIONERS - QUALITY CONTROL LABORATORY
WATER QUALITY SUMMARY - 1971

FINISHED WATER

Chemical, physical and biological analysis are conducted on the finished water supplied to the people of the City of Denver. These analysis are done primarily to determine how the water meets the standards of quality as set forth by the Environmental Protection Agency and the Denver Water Board.

RAW WATER

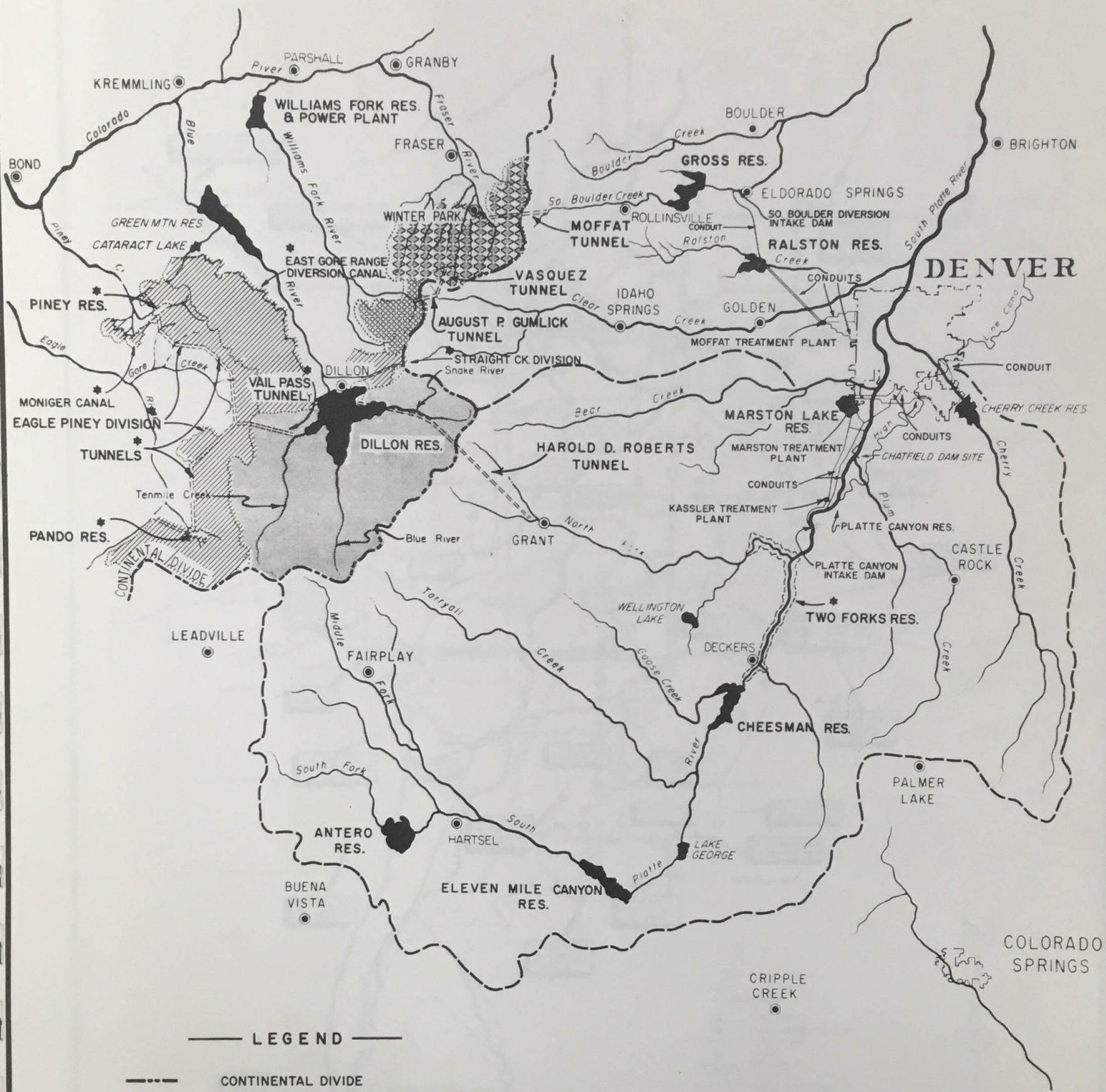
Chemical, physical and biological analysis are conducted on the raw water sources at various points along the watershed. These analysis are used as historical reference as to the changing character of the waters. They are used to discover and possibly pinpoint sources of pollution.

FIELD SANITATION

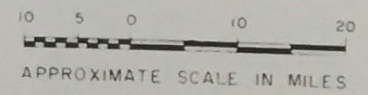
This activity encompasses main sterilization, clear water storage sterilization, cross connection control, quality complaints from customers, and mountain watershed control.

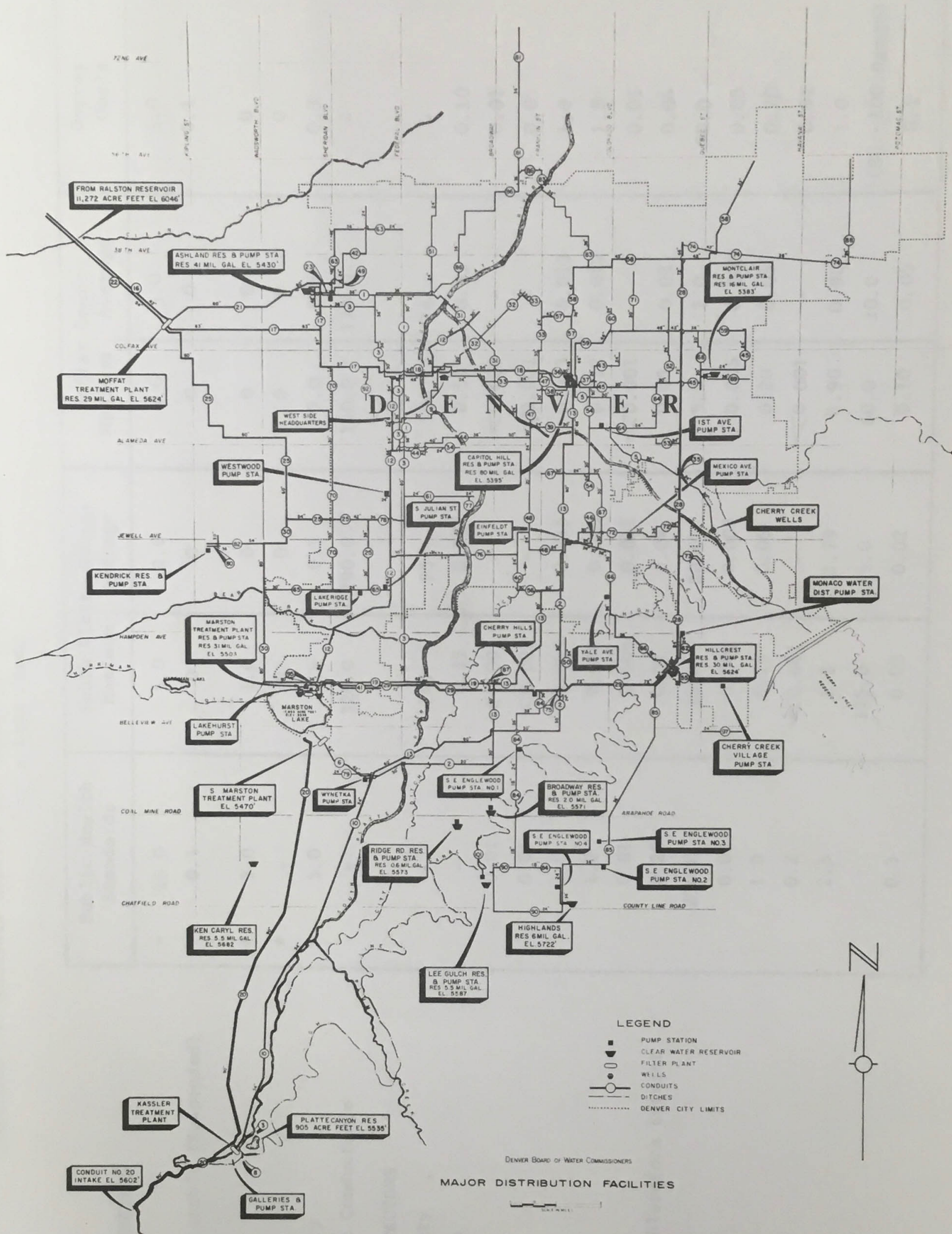
WATER REUSE

This is a study project conducted by the Denver Water Board, the University of Colorado and the Environmental Protection Agency. The purpose of this study is to determine ways and means of producing usable water from sewage effluents.



DENVER BOARD OF WATER COMMISSIONERS
WATER SUPPLY SYSTEM





DENVER BOARD OF WATER COMMISSIONERS - QUALITY CONTROL LABORATORY

WATER QUALITY SUMMARY - 1971

Standards and Analysis Results are Expressed in Milligrams per Liter or Units*
($\leq$ = Less Than)

	Public Health Standards	South Platte Source		Moffat Source		Denver Goals
		Maximum	Average	Maximum	Average	
PHYSICAL FACTORS						
Color	* 15.0	5.0	2.0	3.0	3.0	3.0
Non-Filterable (Suspended) Residue	0.1	0	0	0	0	0.1
Odor	* 3.0	1.0	0	0	0	0
Taste	* -	0	0	0	0	0
Turbidity	* 5.0	2.0	0.5	3.0	0.5	0.3
Specific Conductance	-	320.0	290.0	150.0	120.0	-
CHEMICAL FACTORS						
Alkalinity	-	140	95	100	74	-
Aluminum	-	0.35	0.30	0.50	0.35	0.10
Ammonia	0.01	≤ 0.001	-	≤ 0.001	-	0.01
Arsenic	0.05	≤ 0.001	-	≤ 0.001	-	0.05
Barium	1.0	0.045	0.015	0.023	0.013	1.0
Boron	1.0	0.019	0.019	0.012	0.012	1.0
Cadmium	0.01	0.003	0.001	≤ 0.001	-	0.01
Carbon Chloroform Extract	0.20	0.07	0.04	0.05	0.03	0.04
Chloride	250.0	35.0	20.0	5.0	2.0	50.0
Chromium	0.05	0.005	0.005	0.005	0.005	0.05
Copper	1.0	0.15	0.08	0.20	0.05	0.20
Cyanide	0.2	≤ 0.001	-	≤ 0.001	-	0.01
Fluoride	2.5	1.2	0.75	0.90	0.90	1.0
Hardness	-	175.0	115.0	60.0	30.0	(80.-100. Range)
Iron	0.3	0.03	0.02	0.10	0.05	0.1

WATER QUALITY SUMMARY - 1971 (Continued)

CHEMICAL FACTORS (Continued)

Public Health Standards	South Platte Source Maximum	South Platte Source Average	Moffat Source Maximum	Moffat Source Average	Denver Goals
Lead	<0.01	-	<0.03	<0.02	0.05
Magnesium	6.5	4.2	3.0	2.0	-
Manganese	0.005	0.01	0.10	0.005	0.05
Mercury	0.0004	0.0001	0.0001	0.0001	0.001
Nitrates Plus Nitrites	0.20	0.10	0.10	0.005	10.0
pH	7.9	7.6	8.2	7.9	7.2-8.0
Phenols	0	0	0	0	0.001
Phosphorus (Total)	0.30	0.05	0.10	0.05	0.50
Selenium	<0.001	-	<0.001	-	0.01
Silica	6.5	6.5	8.4	8.2	-
Silver	<0.001	-	<0.001	-	0.05
Sodium	21.5	21.0	5.0	5.0	-
Sulfates	54.0	28.0	15.0	10.0	100.0
Total Dissolved Residue	215.0	145.0	115.0	74.0	200.0
Zinc	0.15	0.005	0.50	0.01	1.0
BIOLOGICAL FACTORS					
Macroscopic Nuisance Organisms/Liter	0	0	0	0	0
Coliform /100 ml	0.2	-	0.2	-	0.1
Fecal Coliform /100 ml	0	-	0	-	0
RADIOLOGICAL FACTORS					
Gross Alpha Picocuries/liter	1.0	-	1.0	-	10.0
Gross Beta Picocuries/Liter	1000.0	-	13.0	-	100.0

SUMMARY OF ANALYSIS FOR FLUORIDE RESIDUALS
IN DENVER'S WATER SUPPLY
1971

Fluoride in Parts Per Million

(Analyses performed by Denver Health Dept. Laboratory)

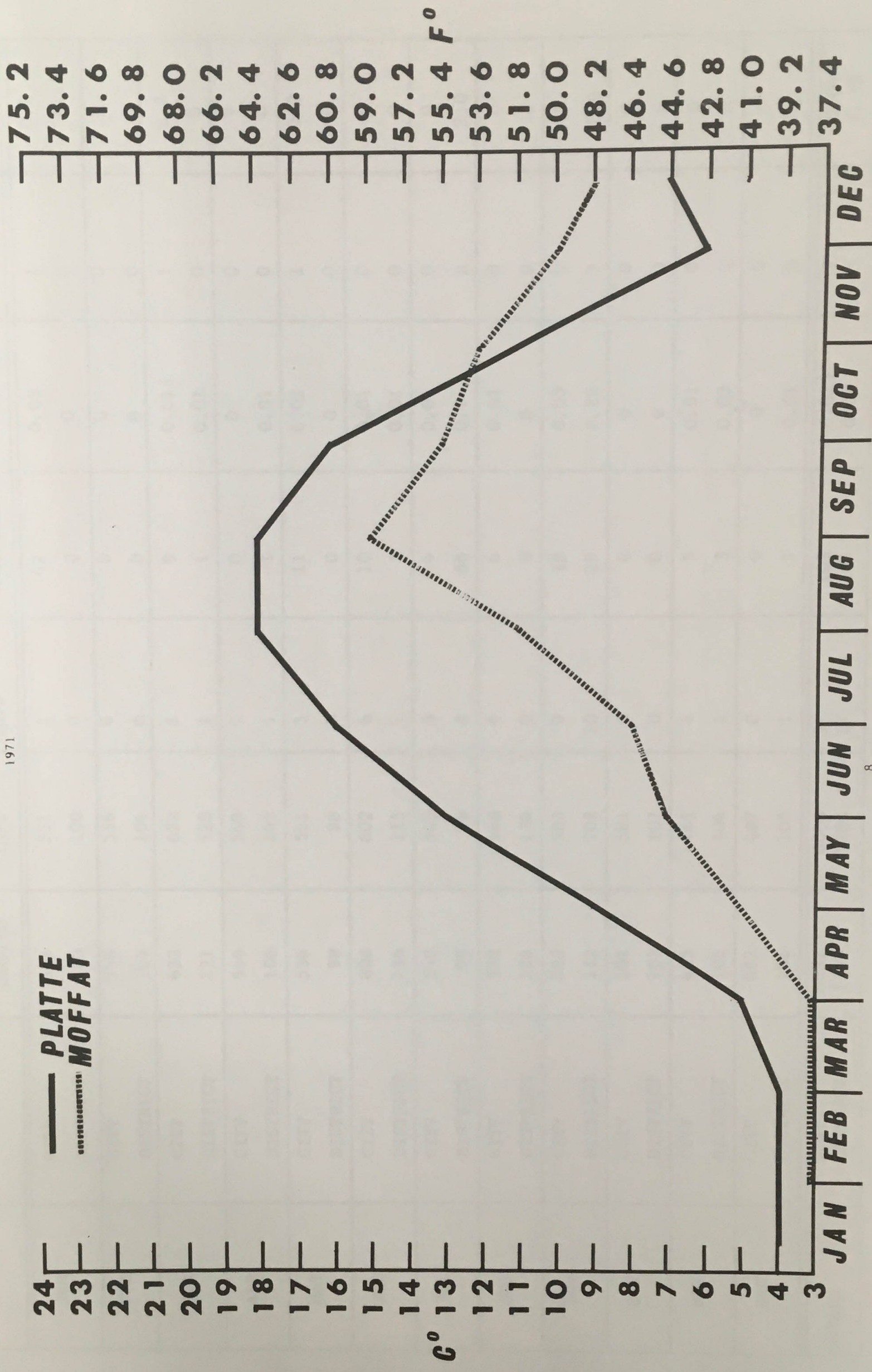
(Monthly Averages)	West Slope Water Moffat Plant				South Platte Water* Marston Plant			Yale and Raleigh Pumping Station
	Raw	Treated	West	West 38th Ave	Cherokee	South	Marston Conduits #19 #12 North	
Month		East						
January	-	0.9	-	0.8	0.9	0.8	0.9	0.9
February	0.2	0.7	0.9	0.7	0.8	0.8	0.9	0.9
March	0.2	1.0	-	0.9	0.9	0.8	0.9	0.9
April	0.2	1.0	0.7	0.8	0.9	0.9	0.9	0.9
May	0.2	0.7	0.9	0.8	0.8	-**	0.9	0.9
June	0.2	0.7	0.6	0.7	0.8	-	0.6	0.7
July	0.2	0.8	0.9	0.8	0.7	-	0.7	0.8
August	0.4	0.8	0.8	0.7	0.6	-	0.6	0.6
September	0.4	0.7	0.8	0.7	0.6	-	0.6	0.6
October	0.2	0.8	0.9	0.8	0.7	-	0.6	0.6
November	0.4	0.8	0.7	0.8	0.7	-	0.7	0.7
December	0.2	0.9	0.6	0.8	0.7	-	0.7	0.7
Number of Samples for Year	41	43	34	47	47	17	47	47
Maximum for Year	0.4	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Minimum for Year	0.2	0.7	0.6	0.7	0.6	0.8	0.6	0.6
Average for Year	0.2	0.8	0.7	0.7	0.7	0.8	0.7	0.7

* Naturally occurring fluoride

** Filters Permanently Shut Down

WATER TEMPERATURE IN DISTRIBUTION SYSTEM

1971



BACTERIOLOGICAL SUMMARY FOR THE YEAR OF 1971

MONTH	SOURCE	TOTAL TAPS SAMPLED	TOTAL NEGATIVE TAPS	TOTAL POSITIVE TAPS	TOTAL COLIFORMS	COLIFORMS / 100 ml	HIGH DENSITY TAPS	% HIGH DENSITY
JAN	CITY	552	551	1	42	0.08	1	0.2
	DISTRICT	100	100	0	0	0	0	0
FEB	CITY	556	556	0	0	0	0	0
	DISTRICT	104	104	0	0	0	0	0
MAR	CITY	633	632	1	9	0.015	1	0.2
	DISTRICT	121	120	1	1	0.01	0	0
APR	CITY	569	569	0	0	0	0	0
	DISTRICT	106	105	1	1	0.01	0	0
MAY	CITY	554	551	3	11	0.02	1	0.2
	DISTRICT	98	98	0	0	0	0	0
JUN	CITY	608	602	6	10	0.01	0	0
	DISTRICT	116	115	1	1	0.01	0	0
JUL	CITY	548	545	3	4	0.01	0	0
	DISTRICT	98	96	2	66	0.7	2	2.0
AUG	CITY	572	568	4	4	0.01	0	0
	DISTRICT	124	124	0	0	0	0	0
SEP	CITY	592	583	9	18	0.03	0	0
	DISTRICT	112	102	10	29	0.25	3	2.0
OCT	CITY	501	501	0	0	0	0	0
	DISTRICT	107	107	0	0	0	0	0
NOV	CITY	465	461	4	5	0.01	0	0
	DISTRICT	105	104	1	3	0.03	0	0
DEC	CITY	487	487	0	0	0	0	0
	DISTRICT	106	105	1	1	0.01	0	0
TOTALS	CITY	6637	6606	31	103	0.015	3	0.04
	DISTRICT	1297	1280	17	102	0.08	5	0.38

DENVER BOARD OF WATER COMMISSIONERS

QUALITY CONTROL LABORATORY

Chemical Analyses 1971 - Supply Sources for South Fork of South Platte River
Results are averages in milligrams per liter unless otherwise indicated *

Element	Form	Antero Reservoir		Eleven Mile Reservoir		Tarryall Creek		Cheesman Reservoir		West Creek	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
Bicarbonate	HCO ₃	105	100	200	140	180	147	200	125	90	55
Calcium	Ca	65	55	65	42	40	35	45	35	20	20
Carbonate	CO ₃	12	50	50	0	0	0	10	0	0	0
Chloride	Cl	230	180	210	100	23.5	10.0	65	20	20	5
Fluoride	F	0.50	0.34	0.40	0.34	0.50	0.35	1.75	1.20	1.0	0.35
Iron	Fe	1.0	0.5	1.0	0.5	1.0	0.05	1.0	0.5	1.0	0.1
Magnesium	Mg	45.0	40	30	25.5	10.0	4.1	25.0	15.5	4.0	3.0
Manganese	Mn	1.0	0.5	1.0	0.1	1.0	0.05	1.0	0.10	1.0	0.05
* pH (Units)		8.8	8.5	8.4	8.0	8.0	7.8	8.6	7.8	7.8	7.8
* Specific Conductance (Micromhos)		2575	2000	1500	600	205	195	550	340	200	140
Sulfate	SO ₄	145	130	175	105	25	15	65	45	20	12
Total Hardness	CaCO ₃	380	300	265	200	120	117	250	150	100	60
* Turbidity (Jackson Units)		3.3	3.0	15.0	5.0	10.0	2.0	1.5	2.0	5.0	1.0

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY

Chemical Analyses 1971 - Supply Sources for North Fork of South Platte River
Results are averages in milligrams per liter unless otherwise indicated*

Element	Form	Blue River		Snake River		Ten-Mile Creek		Dillon Reservoir	
		Max	Min	Max	Min	Max	Min	Max	Min
Bicarbonate	HCO ₃	68	40	75	50	100	75	90	58
Calcium	Ca	25	15	15	10	30	18.5	20	20
Chloride	Cl	10.0	5.0	5	5	10	5	10	5
Fluoride	F	0.35	0.30	0.35	0.35	0.95	0.90	0.75	0.40
Iron	Fe	0.15	0.10	0.5	0.2	4.0	0.10	0.50	0.10
Magnesium	Mg	7.5	4.5	5.0	2.5	9.0	4.5	4.5	2.5
Manganese	Mn	0.15	0.05	0.15	0.10	1.0	0.10	0.05	0.01
* pH (Units)		8.0	7.8	7.8	7.3	8.1	8.0	8.0	7.4
* Specific Conductance (Micromhos)		100	95	100	75	155	85	200	140
Sulfate	SO ₄	30	25	25	10	35	30	30	20
Total Hardness	CaCO ₃	100	50	70	45	100	95	90	70
* Turbidity (Jackson Units)		5.0	2.0	5.0	1.5	5.0	1.5	3.0	1.0

DENVER BOARD OF WATER COMMISSIONERS

QUALITY CONTROL LABORATORY

Chemical Analyses 1971 - Supply Sources for Moffat System Tributaries
Results are averages in milligrams per liter unless otherwise indicated*

Element	Form	South Boulder Creek		Gross Reservoir		Ralston Reservoir	
		Max	Min	Max	Min	Max	Min
Bicarbonate	HCO ₃	45	35	40	32	50	45
Calcium	Ca	15	4.0	15	10	12	10
Chloride	Cl	2.0	1.0	2.0	1.0	2.0	1.0
Fluoride	F	0.35	0.30	0.35	0.25	0.40	0.30
Iron	Fe	0.20	0.15	1.0	0.10	1.0	0.01
Magnesium	Mg	4.0	2.0	4.8	2.8	2.8	1.0
Manganese	Mn	0.20	0.05	0.10	0.05	0.50	0.05
* pH (Units)		7.8	7.2	7.8	7.3	8.0	7.4
* Specific Conductance (Micromhos)							
Sulfate	SO ₄	100	80	100	70	140	80
Total Hardness	CaCO ₃	15	5	15	10	30	10
*Turbidity (Jackson Units)		65	40	65	40	58	34
		5.0	4.0	10.0	4.0	50.0	5.0

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY
BACTERIOLOGICAL ANALYSES OF UNTREATED WATER INTO FILTER PLANTS
1971

Results are in average number of bacteria per 100 milliliters

Month	KASSLER		NORTH MARSTON		MOFFAT	
	Coliforms	Fecal Coli	Coliforms	Fecal Coli	Coliforms	Fecal Coli
January	3.0	0	2.7	0.7	0.8	0.3
February	4.3	0	1.9	0.1	0.4	0
March	27.6	0	3.3	1.1	13.8	11.9
April	25.9	0	9.4	6.3	6.3	2.3
May	55.9	0.6	2.5	1.0	64.9	0.9
June	97.8	0	30.6	0.8	34.5	4.6
July	175.0	7.5	20.1	8.1	15.6	0.9
August	315.0	8.8	53.9	34.8	11.4	2.5
September	84.6	5.3	108.3	55.8	4.5	2.3
October	8.5	1.9	75.4	46.1	0.9	0.3
November	2.2	0.6	109.6	90.4	2.5	0.3
December	10.5	2.0	89.4	48.5		

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY

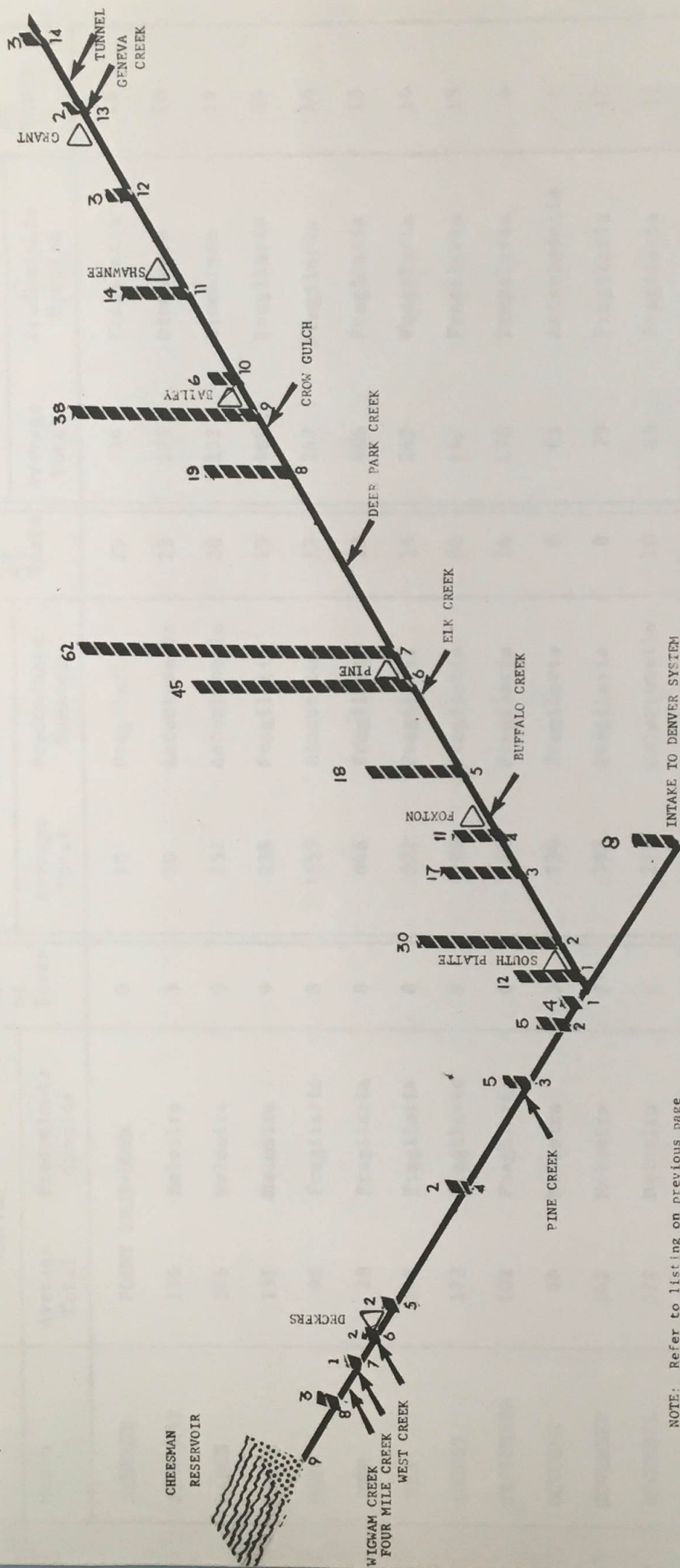
Pollution Survey Sampling Stations
South Platte River - 1971

NORTH FORK		SOUTH FORK	
Code	Location	Code	Location
	River Miles		River Miles
NFP - 1	River junction - South Platte	SFP - 1	River junction - South Platte
2	River at Longview	2	Below junction Spring Creek
3	River above junction Kennedy Gulch	3	Below junction Pine Creek at Twin Cedars
4	River at Foxton	4	Below junction Sugar Creek
5	Above junction Buffalo Creek	5	Crossing at Trumbull
6	Above junction Elk Creek at Pine	6	Crossing at Deckers
7	Near Crystal Lake	7	Below junction Fourmile Creek
8	Below junction Craig Creek	8	At Wigwam Club
9	Crossing below Bailey	9	Below Cheesman at Gaging Station
10	Crossing above Bailey		
11	Crossing East of Shawnee		
12	Crossing at Singleton		
13	Below Grant		
14	Above Grant at Webster		

All tributaries are sampled at nearest point above junction with main stream.

POLLUTION PROFILE

LOWER SOUTH PLATTE RIVER WATERSHED
AVERAGE NUMBERS FECAL COLIFORMS PER 100 M.L.



NOTE: Refer to listing on previous page for mileage of sampling points.

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY
BIOLOGICAL EXAMINATION OF UNTREATED WATER INTO FILTER PLANTS
1971

Month	MOFFAT		No. of Tests	MARSTON		No. of Tests	KASSLER		No. of Tests
	Average Total	Predominate Species		Average Total	Predominate Species		Average Total	Predominate Species	
JANUARY	PLANT SHUT-DOWN		0	70	Fragilaria	25	114	Fragilaria	16
FEBRUARY	136	Melosira	3	70	Asterionella	23	174	Dinobryon	16
MARCH	146	Melosira	9	152	Asterionella	20	152	Dinobryon	19
APRIL	131	Melosira	9	239	Fragilaria	19	460	Fragilaria	14
MAY	98	Fragilaria	8	1655	Dinobryon	13	247	Fragilaria	16
JUNE	28	Fragilaria	8	646	Fragilaria	19	406	Fragilaria	15
JULY	149	Fragilaria	8	522	Fragilaria	16	245	Fragilaria	16
AUGUST	172	Fragilaria	9	226	Fragilaria	20	147	Fragilaria	15
SEPTEMBER	102	Fragilaria	6	126	Fragilaria	16	176	Fragilaria	4
OCTOBER	46	Melosira	5	230	Fragilaria	8	61	Asterionella	8
NOVEMBER	142	Melosira	7	352	Fragilaria	8	79	Fragilaria	15
DECEMBER	372	Melosira	7	278	Asterionella	10	45	Fragilaria	11
TOTAL OF TESTS			79			197			165

DENVER BOARD OF WATER COMMISSIONERS
FIELD CHLORINATION REPORT
LINEAL FEET OF WATER MAINS STERILIZED
1971

MONTH	DIAMETER OF PIPE - INCHES							TOTAL FT.	CAPACITY M.G.
	3"	4"	6"	8"	12"	16"	24"		
JANUARY		310'	4,475'	1,418'	4,967'			11,170'	0.039
FEBRUARY		180'	6,444'	2,790'	5,001'			14,415'	0.041
MARCH	30'	60'	2,556'	1,785'	6,458'			10,889'	0.046
APRIL	45'	1,150'	8,760'	5,065'	2,430'			17,450'	0.041
MAY		683'	3,667'	3,446'	8,750'			16,546'	0.066
JUNE	30'	30'	6,385'	4,085'	3,145'	2,000'		15,675'	0.059
JULY	10'	146'	3,842'	3,101'	2,800'		1,300'	11,199'	0.060
AUGUST		160'	10,917'	3,865'	6,445'	2,115'		23,502'	0.086
SEPTEMBER		160'	800'	1,800'	3,624'			6,384'	0.027
OCTOBER		75'	4,706'	6,208'	6,736'	20'		17,745'	0.062
NOVEMBER		380'	9,981'	7,771'	9,639'	18'	6,180'	23,969'	0.235
DECEMBER		110'	1,865'	2,260'	5,230'			9,465'	0.039
TOTAL	115'	3,444'	64,398'	43,594'	65,225'	4,153'	7,480'	188,409'	0.566
CAPACITY GALLONS	43	2,239	94,665	113,780	383,523	43,399	175,855		

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY
CLEAR WATER STORAGE RESERVOIRS - CLEANING AND STERILIZATION - 1971

It is the policy of the Board to wash and chlorinate each year clear water reservoir in the distribution system at least once per year. Some reservoirs receiving only intermittent usage and intervals are set longer.

All reservoirs are depth-sampled weekly and contamination level is recorded. Following are listed the reservoirs, capacities, and date of sterilization in 1971.

Reservoir	Capacity (M.G.)	Washed & Chlorinated	Reservoir	Capacity (M.G.)	Washed & Chlorinated
Ashland East	19.2	4-8	Moffat #2	5.0	4-15
Ashland West	22.0	4-16	Moffate #3	6.0	4-16
Capitol Hill #1	23.4	3-30	Moffat #4	13.0	4-6
Capitol Hill #2	29.7	3-24	Montclair #1	5.0	5-6
Capitol Hill #3	27.0	3-17	Montclair #2	11.0	5-6
Highlands #1	3.3	3-25	North Side #1	3.5	-
Highlands #2	3.3	4-1	North Side #2	3.5	3-5
Hillcrest #1	14.8	3-26	North Side #3	10.0	3-5
Hillcrest #2	14.8	4-1	North Side #4	14.0	3-24
Moffat #1	5.0	3-30	S.W. Metro #2	0.3	4-6
Littleton Tank #6	5.0	4-9	Littleton Tank #5	5.0	3-22
Littleton Tank #4	2.0	3-16			

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY

CROSS-CONNECTION CONTROL PROGRAM
1971

This program consists primarily of inspections of plumbing systems and well hookups throughout the water distribution system in order to detect cross-connection with sources of non-potable liquids of uncontrolled water supplies.

Experience by health authorities has shown that cross-connections can be found in any plumbing system; industrial, agriculture, or domestic. Both direct and indirect connections are continually being located and corrected in these sources. Special efforts were made in 1971 to survey and correct many commercial and domestic lawn sprinkling systems that were not supplied with back-flow prevention devices.

Another function of this program is to conduct and promote education in this field by contacting and providing information to plumbing firms and contractors. This is a cooperative effort with City and State Health Officials.

STATISTICS - 1971

Total Cross-Connection Inspections	740
Dual Water Agreement Inspections (Wells)	192
Cross-Connections Corrected	20
Back-flow Prevention Device	18

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY

WATER QUALITY COMPLAINTS - CAUSES AND CURES

1. DIRTY OR RUSTY WATER:

This complaint is usually a result of a disturbance of the water main by vibration from opening or closing a large valve. Sediment and rust particles lying in the bottom of the main are suddenly dispersed throughout the moving stream of water into a customer's tap. The effect is usually limited to one or two taps near the source of disturbance but may be as extensive as several blocks either side of the offending valve.

City agencies other than the Water Department sometimes cause this disturbance by improper handling of fire hydrants.

Upon receipt of a dirty or rusty water complaint, laboratory personnel ask the customer to allow the water to run waste for approximately 45 minutes to clear their house service lines.

At the end of this interval, the customer is called back to see if the water is cleared up. If not, laboratory personnel will immediately investigate and upon completion of their investigation may obtain service from distribution for local flushing of the line, to remove the suspended sediment.

Repeated or prolonged occurrences of dirty water in a specific area require more extensive investigation for possible leaks and implementation of a concentrated flushing program.

2. TASTE AND ODORS:

This complaint is the most elusive and difficult of all to analyze and correct. Periods of low water use and poor circulation, as in the winter months, coincide with most of the complaints of this type. Movement of a particular volume of water from the filter plant to a remote area of the distribution system can be delayed for as long as two weeks (estimated) during these times. Unavoidable stale conditions occur and sometimes are accentuated by interaction with chlorine.

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY

WATER QUALITY COMPLAINTS - CAUSES AND CURES

2. TASTE AND ODORS - Continued:

These conditions are alleviated by flushing programs and by removing some clean water storage reservoirs from service. Activated carbon treatment at the filter plant corrects tastes and odors originating from algae growth in raw water storage basins.

Customers experiencing this problem in their systems are usually satisfied with the explanation given. Complete satisfaction and understanding will be attained if the customer's water is sampled and examined bacteriologically to assure that the water is safe for use.

Many problem dead ends are verified in the system through sampling and analysis of this type of complaint. Engineering can then correct these chronic situations by installation of loops and/or blow-offs.

3. CLOUDY OR MILKY WATER:

Excess air trapped in a water line will appear as extremely small bubbles in water drawn from a nearby tap. This imparts a cloudy or milky appearance which disappears if the water is left standing a short time.

The fault usually lies within the customers own plumbing system. In the winter months, there is a large temperature differential between water in the house and water in the mains. More air is dissolved at lower water temperatures which will revert to the characteristic bubbles in the warmer indoor part of the system.

Plumbing and main repairs will also trap air which is readily flushed out in a short time.

4. MISCELLANEOUS COMPLAINTS:

Unusual Sediments:

This complaint is usually confined to one residence or a single water system. Hot water tank scale or pipe dope is found to be the cause.

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY

WATER QUALITY COMPLAINTS - CAUSES AND CURES

4. MISCELLANEOUS COMPLAINTS - Continued:

Unusual Sediments - Continued

Substitution of the meter for a flow through filter on the service for a two-week period verifies that the incoming water is clear.

Aquarium Troubles:

The customer is advised to consult their fish dealers for proportions of chemical compound to offset chlorine residuals, which is the usual complaint.

Damage to Flowers and Plants:

Overdosage with plant nutrient compounds is found to be the principle cause of this complaint. Florists and plant growers are provided with a chemical analysis of the water serving their systems on request so that they can adjust their dosages accordingly.

1971 STATISTICS

Complaints sampled and analyzed	-	125
Sediment and rust	-	39
Taste and Odors	-	56
Air	-	7
Request for Test	-	23
Complaints explained by telephone	-	355

DENVER BOARD OF WATER COMMISSIONERS
QUALITY CONTROL LABORATORY
THE DENVER SUCCESSIVE WATER USE PROGRAM

Denver's Wastewater Reuse Program has been very active this year with ongoing research in the pilot plant and intensified studies of the industrial reuse potential.

Federal funding of the existing pilot plant operation ceases in March, however at which time a final report will be prepared. All data, results, and conclusions must first be submitted to the funding agency before open publication.

Marketing studies in the fall revealed the potential industrial users of reclaimed water and provided ground work for early design of a demonstration plant.

Research is continuing at the pilot plant under a new three year program. The aim of the new operation will be to develop additional information and design criteria which will be valuable in the planning of a large scale municipal water renovation system.

As indicated in the flow diagram figure 1 new studies will first be concerned at removing or converting nitrogen compounds. In most reuse situations nitrogen compounds are deemed deleterious and subsequently must be handled. Research will include the existing biological nitrification unit, a new submerged filter process, and a clinoptilolite system.

Proceeding to chemical treatment, various coagulants and aids will be studied for the removal of phosphorus and suspended material.

Super chlorination is a possibility for its usefulness in removing nitrogen compounds and disinfection.

Existing filters will be modified with different medias and flow situations.

Entirely new to the plant will be a series of activated carbon columns to remove taste, odor, and color producing organics.

Final treatment will include demineralization through ion exchange or reverse osmosis units followed by disinfection.

It is hoped these processes will provide valuable input to the potable as well as industrial phases.

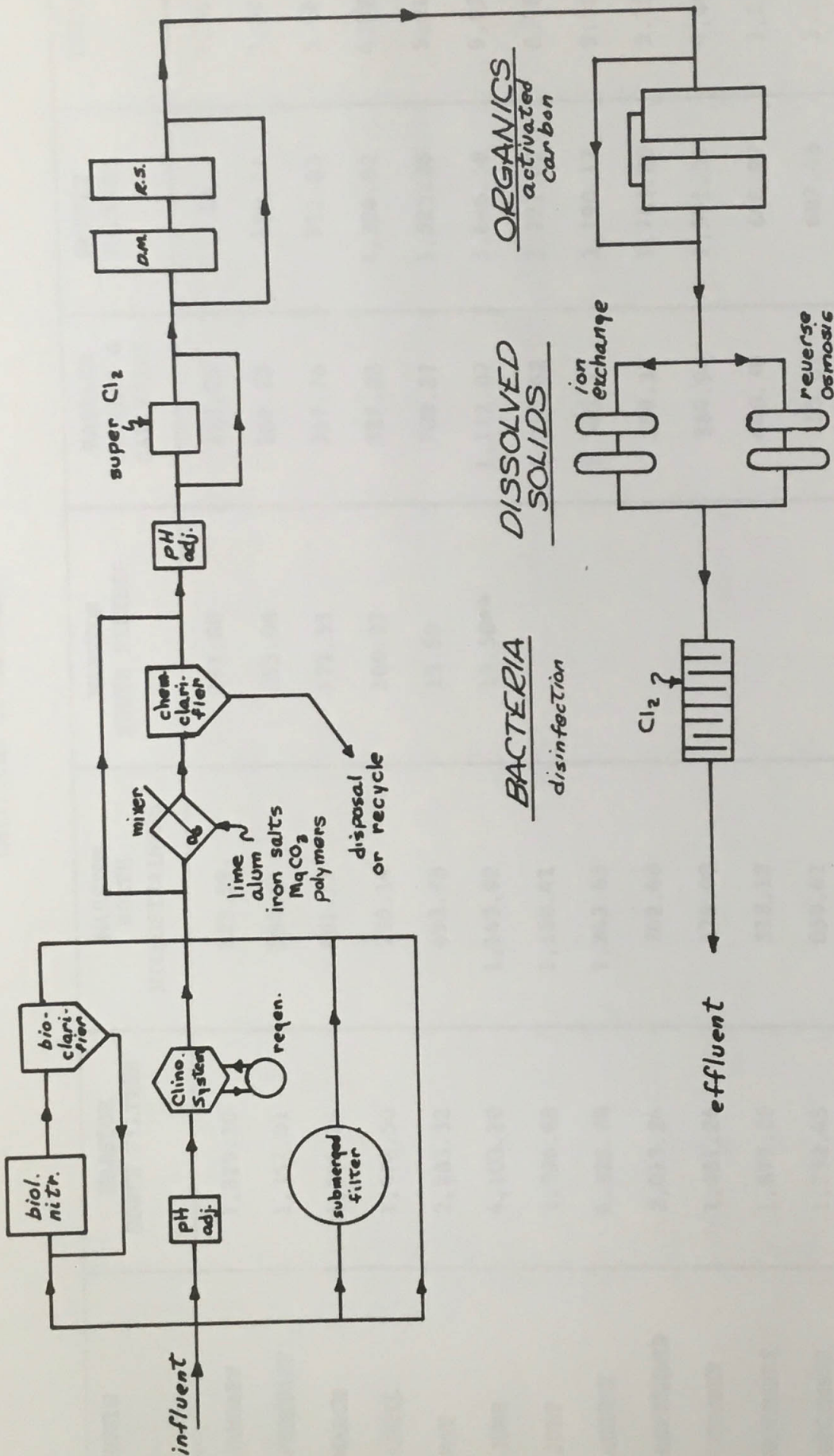
The next three years present a challenging opportunity for the Denver Water Board to successfully implement the concepts of reuse in the Denver area.

NITROGEN
removal
or conversion

PHOSPHORUS
removal

NITROGEN
conversion
disinfection

SUSPENDED SOLIDS
dual-media
rapid sand
filtration



RESEARCH PILOT PLANT - FLOW DIAGRAM

FIGURE 1

DENVER BOARD OF WATER COMMISSIONERS
WATER FILTERED DURING 1971
(Millions of Gallons)

MONTH	MARSTON NORTH FILTERS	MARSTON NORTH MICROSTRAINERS	MARSTON SOUTH FILTERS	KASSLER FILTERS & GALLERIES	MOFFAT FILTERS	TOTALS
JANUARY	1,329.20	923.59	171.80	318.05	0*	2,742.64
FEBRUARY	1,357.01	594.01	155.08	289.38	190.71	2,586.19
MARCH	1,304.16	661.75	171.55	317.76	711.83	3,167.05
APRIL	1,978.50	235.14	160.37	327.33	1,324.92	4,026.26
MAY	2,283.32	492.78	15.50	702.27	1,525.26	5,019.13
JUNE	4,103.20	1,143.92	15.50**	1,112.07	3,646.58	9,021.27
JULY	3,396.88	1,158.41		1,010.62	3,221.82	8,787.73
AUGUST	4,321.78	1,243.65		1,146.33	3,190.17	9,901.93
SEPTEMBER	2,013.24	742.48		589.33	1,783.20	5,128.25
OCTOBER	1,451.26	678.00		364.96	1,551.39	4,045.61
NOVEMBER	1,877.26	318.12		440.30	640.97	3,276.65
DECEMBER	1,752.45	659.41		55.81	687.46	3,155.13
TOTALS	27,168.26	8,851.26	689.80	6,674.21	18,474.31	60,857.84

* Not in Operation

** Filters Permanently Shut Down

DENVER BOARD OF WATER COMMISSIONERS

CHEMICAL TREATMENT OF WATER - 1971

Pounds of Chemicals Used and Relative Cost

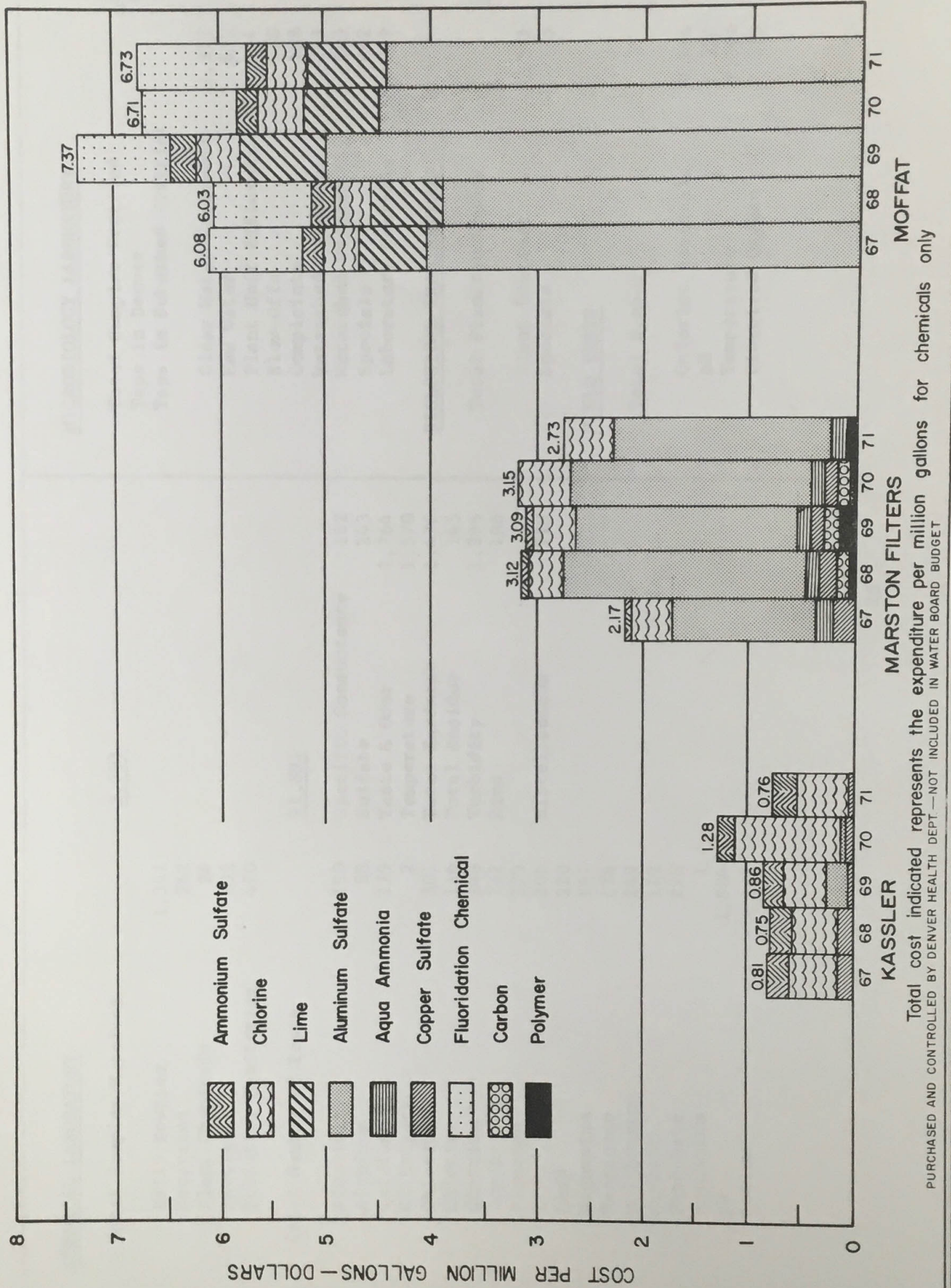
Chemicals	Kassler Filters	Marston Filters & Microstrainers	Moffat Filters	Total Pounds	Cost Per Pound	Total Cost
Aluminum Sulfate (Alum)	--	2,248,900	2,477,456	4,726,356	\$0.0329	\$155,497
Ammonium Sulfate	50,142	--	112,308	162,450	0.0305	4,955
Ammonium Hydroxide (Aqua Ammonia)	--	140,366	--	140,366	0.034	4,772
Calcium Oxide (Lime)	--	--	806,716	806,716	0.0168	13,553
Carbon (Activated)	--	--	--	--	--	--
Chlorine (Liquid)	51,727	297,227	114,407	463,361	0.06145	28,474
Copper Sulfate	1,000	--	--	1,000	0.238	238
Polymer	--	1,888	--	1,888	1.60	3,021
Total Cost	\$4,946	\$100,047	\$105,517			\$210,510
Cost per Million Gallons - Treated	\$.76	\$2.73	\$5.71			<u>\$3.46</u> (Average)

Sodium Silico Fluoride*

-- 191,534 0.0991 \$18,981

*Fluoridation chemical is purchased and controlled by the Denver Department of Health and Hospitals

DENVER BOARD of WATER COMMISSIONERS FILTER PLANT CHEMICALS - COST PER MILLION GALLONS - 1967 - 1971



CHEMICAL LABORATORY

MICROBIOLOGY LABORATORY

BIOLOGICAL EXAMINATIONS

Total Plankton Counts	1,466
Plant Routines	1,291
Specials	175
<u>ELD TESTS</u>	
Total Number	13,099
Chlorine Residuals	9,274
pH	356
Temperature	3,140
Dissolved Oxygen	329

FIELD TESTS

Total Number	13,099
Chlorine Residuals	9,274
pH	356
Temperature	3,140
Dissolved Oxygen	329

2 Feb

— 30

2 Mar 73 5 Mar

AE Paper 1 April

D H
Q/H
G & A
Profit

1 June

















South Platte River Flood

Picture taken at approx. 11 a.m., 7 May, 1973

View from Helicopter over Southern portion
of proposed Mint Site. 7th St. in left
center of picture.

Frank Rhen





South Platte River Flood

Picture taken at approx 11 a.m., May 7, 1973

Note: River crested about 1.5 feet higher than
water level in this picture at approx.

1:00 A.M., May 7, 1973

Franklin P. R.

View from North of Speer Boulevard
looking South.

South Platte River Flood.

Picture taken at approx. 11 a.m., 7 May 1973

View from south end of proposed Mint

Site looking North east

Comments on Fred - S. Platte file

Denver Federal Center + Park Hill Site (Draft) File

Feb 27, 1974

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

Draft Revised Environmental Impact Statement

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

February 27, 1974

Prepared for

U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is considering two possible sites, without favoring either location until comments on the proposed action have been received and evaluated. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

5. Comments Requested From:

Environmental Protection Agency	Page Number
Department of Agriculture	
Department of the Army, Corps of Engineers	1
Department of Commerce	
Department of Health, Education and Welfare	2
Department of Housing and Urban Development	
Department of the Interior	4
Department of Transportation	
Advisory Council on Historic Preservation	Policies
General Services Administration	7
Office of Economic Opportunity	
State of Colorado Division of Commerce and Development	9
State of Colorado Department of Health	
State of Colorado Department of Highways	Employees
State of Colorado Division of Wildlife	9
State Historical Society of Colorado	
Denver Regional Council of Governments (Regional Clearing House)	
Regional Transportation District	
Metropolitan Denver Sewage Disposal District Number One	17
Urban Drainage and Flood Control District	
City and County of Denver	17
Colorado Water Conservation Board	
Board of Water Commissioners, City and County of Denver	18
City of Lakewood	
Jefferson County	21
Rocky Mountain Center on Environment	
Colorado Federation of Women's Clubs	21 and Long-Term
Greater Park Hill Community Inc.	21
Park Hill Improvement Association	
Thorne Ecological Institute	22

6. Draft statement made available to the Council on Environmental Quality and the public on February 27, 1974.

Bibliography

Appendix A - Map of Park Hill Golf Course Area

Appendix B - Aerial Photograph of Park Hill Golf Course Area

Appendix C - Map of Denver Federal Center Area

Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Map Scale of Denver Area

DRAFT REVISION
NEW UNITED STATES MINT
DENVER, COLORADO

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DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year. More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the mission of producing domestic coins ranging in denomination from 1¢ to \$1, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

a. Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

b. Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins and supplies) and warehousing.

c. Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed and constructed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the new facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (1) A site consisting of a minimum of 30 acres.
- (2) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, would be in harmony with and enhance the area where it is located, and would provide for the important tourist aspects of the facility.

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until

comments on the proposed action have been received and evaluated. The two proposed alternative sites are:

Site A - The northwest corner of the Park Hill Golf Course in the City of Denver, near the intersection of Colorado Boulevard and Smith Road. (See attached map, Appendix A, and attached aerial photograph, Appendix B.)

Site B - The northwest corner of the Denver Federal Center in the City of Lakewood, near the intersection of Union Street and the West Sixth Avenue Freeway. (See attached map, Appendix C, and attached aerial photograph, Appendix D.)

The proposed sites would supersede the previously selected site along the west bank of the South Platte River, extending from about 18th Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement dated February 2, 1973. This site has been abandoned because of the incompatibility of having the new mint on a long, narrow strip of land immediately adjacent to the mainline north-south railroad trackage through Denver, which the Burlington Northern Railroad Company plans to construct on the west bank of this reach of the South Platte River. Due to the size of the proposed mint structures and constricted width in the center portion of the site, the layout of the mint on this property would require large building complexes at the two end portions of the area, with about 1,000 feet of open space in between. This situation, coupled with the planned raised grade of the railroad tracks to avoid potential South Platte River floods, would make the frequent heavy train traffic highly apparent to the many public visitors (approximately 250,000 per year at the present mint), to the mint personnel themselves, as well as from surrounding areas. This environmental condition would be completely out of harmony with the envisaged new mint, which is being planned to serve as an important tourist attraction and to reflect the importance and dignity of the United States Government coinage operations that would be performed in the facility. The Treasury Department had no knowledge of plans to place mainline railroad trackage in such close proximity to the mint property until October 1973, long after the formal South Platte site agreement between the City of Denver and the United States Government was signed on May 24, 1973. In addition, air pollution problems, related to this site, have developed since the original Environmental Impact Statement was prepared. These air pollution problems are similar in nature and magnitude to those for the Park Hill Golf Course site as discussed in paragraph 3.2b herein.

Authority for the construction of a new mint at Denver is contained in 31 U. S. Code 261 and 291.

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Park Hill Golf Course

The proposed site consists of about 35 acres located in the northwest corner of the Park Hill Golf Course at the intersection of Colorado Boulevard and Smith Road. The area is a portion of Clayton Trust land controlled by the Mayor of Denver and the Denver City Council as trustees. The proposed site is about 4 miles northeast of the Denver Central Business District. Presently the site is occupied by the Park Hill Golf Course. In order to provide the planned space for the new mint buildings and grounds, eight golf holes would have to be relocated to the currently vacant portions of the Clayton Trust Park Hill property. If this site is selected, the City of Denver plans to rebuild the golf holes affected so that there would be no time lost in availability of the 18-hole course for area golfers. ¹

A rail line is near this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for rail service to the mint. Smith Road is lightly traveled and is crossed by similar tracks in the vicinity. The availability of the spur would be advantageous, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Road access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70. The intersection of these two main arteries is a clover-leaf, about 1,800 feet to the north of the proposed site.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage. There are no historic resources nor historic places which would be affected by the proposed project.

¹ Letter from the Mayor of the City and County of Denver to Frank W. Rhea dated February 12, 1974.

A copy of each document referred to in this Statement may be consulted by any interested person at the Office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

To the north of the proposed site, across Smith Road and the railroad, is an industrial and warehousing area. The buildings are relatively new and barely visible from the proposed mint site. To the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This open recreational area would separate the mint site from the light industrial complex to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed nor relocated to make the site usable. It would, however, be necessary to construct a heating plant for the new mint at this site.

The proposed site is well drained and is not subject to flooding nor a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing and drilled pier foundations would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado Boulevard and Colfax Avenue.² Transportation would be by bus from this point to the proposed site, a distance of about 2 miles.

The climatic environment of the proposed site is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent. This site is relatively unfavorable from a meteorological and air pollution point of view. Further discussion of this matter is contained in the probable environmental impact section of this statement.

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing heating plant to provide steam for heating the proposed mint structure.

² A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

b. Site B - Denver Federal Center

The proposed site consists of about 35 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site, which is approximately 8 miles west of the Denver Central Business District, is in Lakewood and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide for the new mint.

A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This would be advantageous, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Highway access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Place, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing storage buildings which are to be removed. There are no historic resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8

to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation into the Federal Center grounds is now provided by busses of Denver Metro Transit, using West Alameda and Kipling Street. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned on Union Street between Alameda Avenue and Sixth Avenue. There are presently about 6,500 employees at the Center. Thus, the Mint's approximately 800 employees would be joining with an existing base for public transportation.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area.

Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Park Hill Golf Course

It is considered that construction of a new mint on the Park Hill site would be in harmony with Federal, State, and City land use plans, policies and controls for the affected area. The site in question is designated as park or open space on the land use plan of the Denver Regional Council of Governments.³ However, the latest City of Denver land use plan⁴ shows approximately three-fourths of the site as industrial space and one-fourth as park or open space. By Resolution Number 6, passed by the Council on January 28, 1974, and approved by the Mayor on January 29, 1974, the Council of the City and County of Denver urged Mrs. Mary Brooks, Director of the Bureau of the Mint, to select the Park Hill Golf Course site for the location of the new Denver Mint.⁵ The new mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with the commercial and industrial activities to the north and east. Road and rail access into the north side of the site could

3 Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

4 Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.

5 Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.

be accomplished so as to minimize, if not completely eliminate, any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust property could be accomplished before mint construction commences (projected for late 1975) so that there would be no interruption in availability of golf course facilities. There is another major park, the Denver City Park, including a municipal golf course, about two miles south of the proposed site. The proposal would not involve displacement of residences nor commercial enterprises.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. There would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site and to the north, across Sixth Avenue, are zoned E72-77, Commercial, under the current approved zoning plan of the City of Lakewood. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments, which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD", a draft comprehensive plan for the future development of Lakewood.⁶

It is believed, on balance, that locating the new mint at this proposed site would be a beneficial land use in conformance with plans, policies and controls for the affected area.

6 CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.

3. The Probable Impact of the Proposed Action on the Environment.

The construction of a new mint on either of the proposed sites would have some effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows:

3.1 Transportation of Materials, Employees and Visitors into and out of the Facility.

a. Introduction

These introductory remarks pertain to both proposed sites. A new mint at either location would produce additional automotive traffic loads in the specific site vicinity and in the Denver metropolitan area in general. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 11 percent reside within a 2-mile radius of the existing mint, 50 percent within a 5-mile radius, and 80 percent within a 10-mile radius. After several years of operational status of the mint, it is expected that this residence pattern would be generally applicable to the proposed new locations, with some adjustment due to housing area locations as discussed below for each site. Presently, there are about 285 private automobiles used daily by employees in getting to and from work. These automobiles travel an average one-way distance of 6 miles, for a total daily vehicle miles traveled of 3,420.

For either location the additional traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for mint employees' private automobiles would be approximately 125 cars inbound and 125 cars outbound during each shift change (presently 7 A.M., 3 P.M., and 11 P.M.), 70 cars inbound at about 8 A.M. and 70 cars outbound at about 4:30 P.M. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity and the Denver metropolitan area in general, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. The tourist traffic, averaging an estimated 200 cars and 5 busses daily, would occur in the middle portion of the day and thus would naturally avoid peak periods. Mint traffic would terminate in its own parking areas and would not add to parking congestion in the site vicinity. There would be separate parking areas for visitors and for mint employees.

b. Site A - Park Hill Golf Course

While the overall road network in the vicinity of this site is excellent, the additional traffic generated by the mint would tend to coincide with the direction of existing traffic and would add to existing congested conditions on Colorado Boulevard and on I-70. In 1971 (the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 29,800 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles.⁷ Both of these arteries are saturated during peak traffic periods. Mint employee traffic would add 900 one-way trips at the immediate site location, if 1973 usage patterns are continued. As indicated above, mint traffic would be scheduled to avoid peak periods. Tourist traffic would add an average of 410 one-way trips daily.

This site is presently served by Denver Metro Transit busses operating on Colorado Boulevard, and it is expected that this service will be expanded and bus frequency increased, in accordance with the Summary Report issued in March 1973 by the Regional Transportation District.⁸ With respect to the rail based Personalized Rapid Transit System planned by the Regional Transportation District, the closest service would be on the Colfax Avenue line at the intersection of Colfax Avenue and Colorado Boulevard.⁹ Employees and visitors would have to transfer to busses at this point to proceed the remaining approximate 2 miles to the mint.

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration occurring in the immediate site area.

On the basis of housing availability locations and experience with respect to the present Denver Mint, it is expected that after several years of mint operations at this site, the center of gravity of mint employee residences would be about 2 miles to the southwest towards the City core. On this basis, the net daily additional VMT for the Park Hill site is estimated as follows:

900 one-way trips x 6 miles (average employee travel distance to center of gravity)	=	5,400
900 x 2 miles (center of gravity to mint site)	=	1,800
		<u>7,200</u>
Minus VMT for current operation at the existing Denver Mint		
	-	<u>3,420</u>
Net additional VMT		3,780

7 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

8 A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

9 Ibid.

It is considered that this is a maximum figure and that with increased development and use of public transportation systems the net additional VMT would be reduced appreciably for this site, as well as for the Denver Federal Center site.

c. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available to the Federal Center from Sixth Avenue, Alameda Avenue, Kipling Street and Union Street. The mint daily traffic of 900 employee one-way trips and 410 tourist one-way trips would add to existing loads on the access routes, which had daily averages as follows in 1971, according to State Highway Department counts: ¹⁰

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Union Street is currently being reconstructed to provide expansion from two to six lanes along the proposed mint portion of the Federal Center, so that existing peak-hour congestion on this route should be reduced.

The mint employee traffic generally would be counterdirectional to the mass of rush-hour movements, which are City-center oriented in the mornings and outbound oriented in the afternoons. The Regional Transportation District's plans call for service to the Federal Center by the Personalized Rapid Transit System, with a main station on Union Street between Alameda and the Sixth Avenue Freeway. Also, the total Federal Center employee population, in excess of 6,000, serves as a good base to justify early development of improved public bus systems, to the end that there might be reductions in employee use of private automobiles.

For this proposed location, it is expected, on the same bases as mentioned above for the Park Hill site, that after several years of operation the center of gravity of mint employee residences would be halfway between the site and the City core, or about 4 miles to the east of the proposed site. Similar to the discussion for Park Hill, the net daily additional vehicle miles traveled is estimated as follows:

900 one-way trips x 6 miles (average distance to center of gravity)	=	5,400
900 x 4 miles (center of gravity to mint site)	=	<u>3,600</u>
		9,000
Minus current VMT	=	<u>3,420</u>
Net additional VMT		5,580

10 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

3.2 Potential Pollution - Air, Water, Solid Wastes and Noise.

a. General

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential pollution problems associated with the construction and operation of the facility. These potential problems are similar for both of the proposed locations. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring new state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint would be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

b. Air Pollution - Stationary Source and Motor-Vehicle Generated

The new mint would generate some fumes from its metal melting and casting operations, from strip rolling and finishing and from blank annealing and cleaning. It is planned to install fume collection systems, employing hoods and ductwork, and to cleanse all fumes from the industrial operations using electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, State and Federal standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards. With this installed equipment, it is considered that air pollution effects from the industrial operations would be negligible.

The same negligible effects generally would be true for any potential stationary source air pollution from the facility heating plant. At the Denver Federal Center there is sufficient capacity available in the existing central heating plant to serve the proposed Mint. The Denver Federal Center boilers are capable of burning natural gas, No. 2 fuel oil and coal. In 1973 these boilers were tested and found in compliance with current State and Federal clean air emission standards while burning gas, fuel oil and high grade coal. However, in light of the current and long-range energy situation and air quality standards, the General Services

Administration is in the process of having a detailed engineering study made on available fuel sources in respect to environmental considerations to determine the best fuel(s) to be used at the Denver Federal Center. If clean fuels are not available in the future for operation of this heating plant, it may be necessary for the General Services Administration to install some type of precipitators or filters in the plant smokestacks. In any event, by the scheduled date of 1980 for the new Mint to be fully operational, full compliance of this facility with Federal and Colorado Clean Air Standards is planned. At Park Hill, it would be necessary to construct a heating plant for the new Mint only, which would be fired with relatively clean fuels if available. If not, precipitators would be installed in the smokestacks and the emissions would be comparable in quality and quantity to those caused if the mint load were added to the central plant of the Federal Center.

In addition to the stationary source pollutants, motor vehicle pollutants would be generated throughout the Denver metropolitan area by the net additional vehicle miles traveled of 3,780 for the Park Hill site and 5,580 miles for the Federal Center site. In each case, the additional VMT would be at maximum levels in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Analysis and evaluation of the relative significance of the additional air pollution for the two proposed sites should be done in consideration of current levels of pollution and in consideration of on-going programs to improve air quality in the Denver area. The following data on ambient air quality are from "Statistical Analysis of Air Quality Data 1970, Suspended Particulates", published by the Colorado Department of Health, Air Pollution Control Division, on March 14, 1972:

"Statistical Analysis of Ambient Air Quality Data on
Pollutant: Suspended Particulates
Unit: Micrograms Per Cubic Meter
Year: 1970

(NOTE: This table, showing effects of the proposed State and

Station	Quarter	No. Samples	Arithmetic Mean	Minimum/Maximum
Lakewood	1	24	80	30/211
	2	27	67	15/149
	3	24	55	21/168
	4	20	70	30/109
	Total	95	68	15/211

carbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effect percentage reduction from 1971 emissions.)

11 Statistical Analysis of Air Quality Data, 1970, Suspended Particulates
Colorado Department of Health, Air Pollution Control Division,
1972, pp. 4-5.

School Admin. Building	1	23	149	74/255
	2	24	100	66/181
	3	23	98	40/189
	4	20	122	43/229
	Total	90	117	40/255 "

The Lakewood station is representative of air quality conditions at the proposed Federal Center site. The School Administration Building station is representative of air quality conditions at the proposed Park Hill site. The State of Colorado's long-term standard is an annual arithmetic mean of 70 micrograms per cubic meter of suspended particulates, and a short-term standard of a 24-hour maximum of 200 micrograms per cubic meter which is not to be exceeded more than once in a 12-month period.¹¹

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan
.....

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

Table I - Compilation of control strategy effects on carbon monoxide and hydrocarbon emissions.
(Tons per year)

(NOTE: This table, showing effects of the proposed State and EPA strategies in tons per year of carbon monoxide and hydrocarbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effects in percentage reductions from 1971 emissions.)

11 Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.

Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program..	31	23.0
2. Inspection/maintenance.....	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photochemical oxidants (hydrocarbons) by May 31, 1977."

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions. As the Park Hill site is in both demonstration areas, the net additional VMT caused by mint traffic, although minor in comparative scope, would be counter to the State of Colorado and Environmental Protection Agency programs to improve air quality in the areas adjacent to this proposed site.

Although the net additional VMT caused by mint traffic for the Federal Center site probably would be greater than for Park Hill, it is considered that the net adverse impact on air quality would be less with the new mint located at the Federal Center. This is based on the following reasons. The stationary pollutant source and the concentration of the vehicle source would be a significant distance away from existing high pollution levels and pollution sources, which are concentrated in the Denver Central Business District. The worst pollution levels are centered on Denver proper and occur when atmospheric conditions are stable and winds are light. This produces downslope winds roughly parallel to the Platte River from the south-southwest during the nighttime and early morning hours, and reversals from the north-northeast during the daytime as heating from the sun takes effect. Due to this peculiar meteorology of the Denver area, during periods of highest pollution levels, pollutants from the Federal Center area generally would tend to flow back and forth parallel to the South Platte Valley

considerably to the west of the high pollutant concentrations in the downtown area, whereas pollutants from the Park Hill vicinity would tend to reinforce these high concentrations to a small degree.

c. Other Potential Pollution Problems

Chemical effluent will be produced from the blank cleaning operations and from the assay laboratory. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses. All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

Attention must be given to the handling of process cooling water used in the metal casting and strip rolling operations. Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers or ponds and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to minimize fog-producing conditions. Any fog produced would disappear within the site boundaries.

Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable soils. Solid wastes will be processed within the plant, with major quantities of scrap metal being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to approved disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control.

There will be some noise pollution, particularly during the construction period, with a potential for noise pollution after project completion, if adequate precautions are not adopted. Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative isolation of the sites. Plant operational noise from outside the proposed sites boundaries would not be apparent, as the buildings will be designed with internal and external noise level controls to meet the requirements of the Federal Occupational Safety and Health Act. There would be some minor noise due to truck traffic and railroad switching engines servicing the rear of the facility.

3.3 Energy Use and Conservation.

Energy will be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado¹² has indicated would be available in required amounts at either location. The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects would occur gradually and would be influenced considerably by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability of gasoline for private automobiles and improvements and extensions of public transportation systems.

At both locations land for the proposed project is available, and water, sewerage, roads, electric power and other public services are already in existence as needed for the project.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact and tourist considerations.

With the mint at the Park Hill Golf Course, the secondary consequences would be almost nil. As discussed in paragraph 3.1 above, it is expected that employee residences would gradually change with time from the circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of 2 miles to the northeast. The facility would not be as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists

12 Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. There possibly would be a minor shift in money spent by tourists in the Central Business District to areas closer to the new mint.

For the Federal Center location there would be somewhat more of an impact regarding these factors. In this case, the employee residence center is anticipated to move about 4 miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to 150. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint employees currently in the low-income bracket (less than \$6,825 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary of \$10,839 is generally comparable with that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the City of Denver and in Jefferson, Adams and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT: LAKEWOOD", cited earlier, contains recommendations that the City of Lakewood shall establish a policy of requiring low- and moderate-income housing in future major developments and a goal that annual housing production shall include 10 percent low- and moderate-income units. It is expected that current mint employees would relocate slowly over a considerable time period, if at all, and that most of the new employees would come from the existing Denver metropolitan area work force base, so that there would not be a sudden influx of new residents into areas in close proximity to the mint site.

With respect to schools, the additional mint residents of Lakewood would add about 150 pupils to the school system, with similar minor changes caused in school populations throughout the metropolitan area. These adjustments and additions would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's present annual payroll of \$5 million to a center about 4 miles westward of its present location. Also, a minor amount of tourists' expenditures for lunches and car service would be shifted away from downtown Denver.

4. Alternatives to the Proposed Action.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The alternative of constructing the new mint at some location other than the two sites discussed in this statement has been explored in great detail for in excess of two years.

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other coin production facilities, the Philadelphia Mint and the San Francisco Assay Office.

b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are generally available at reasonable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the Park Hill Golf Course and the Denver Federal Center have been selected for further consideration for the following reasons:

Site A - Park Hill Golf Course

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area.

Site B - Denver Federal Center

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in public ownership.

d. The site would have fair access for tourists and official visitors.

e. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

a. South Platte River from about 18th Avenue to Speer Boulevard.

This location had been selected for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver along the west bank of the South Platte River have made this site untenable for the reasons discussed previously in this statement and which are summarized here for convenience. Due to the long, narrow configuration of the area, and the restricted width at about site center between the Valley Highway and the sharp bend in the South Platte River, layout of the new mint on this property would result in one large building complex on the northern portion and another building complex on the southern portion, with about 1,000 feet of relatively low, open space in between. The frequent through and local service train traffic, operating on tracks immediately adjacent to the mint structures, would produce visual and noise pollution to such an extent that there would not be an appropriate environment for the envisaged mint structures and grounds, which are planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

b. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

- c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the City.

- d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

- e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate environment for the mint.

- f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

- g. Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

- h. Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal make it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot Be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M and 3 P.M. daily. Traffic increases in the vicinity of the Park Hill site probably would create more of a problem because of existing congestion on I-70 and Colorado Boulevard.

Additional stationary source and vehicle-generated pollutants would be of about the same quantity for both locations. The additional pollutants in the Park Hill area are of more concern because of existing high air pollution levels in the vicinity and Federal/State plans to reduce vehicle miles traveled in this area.

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal, which do not appear to be of a major nature, are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce the traffic congestion and air pollution adverse impacts.

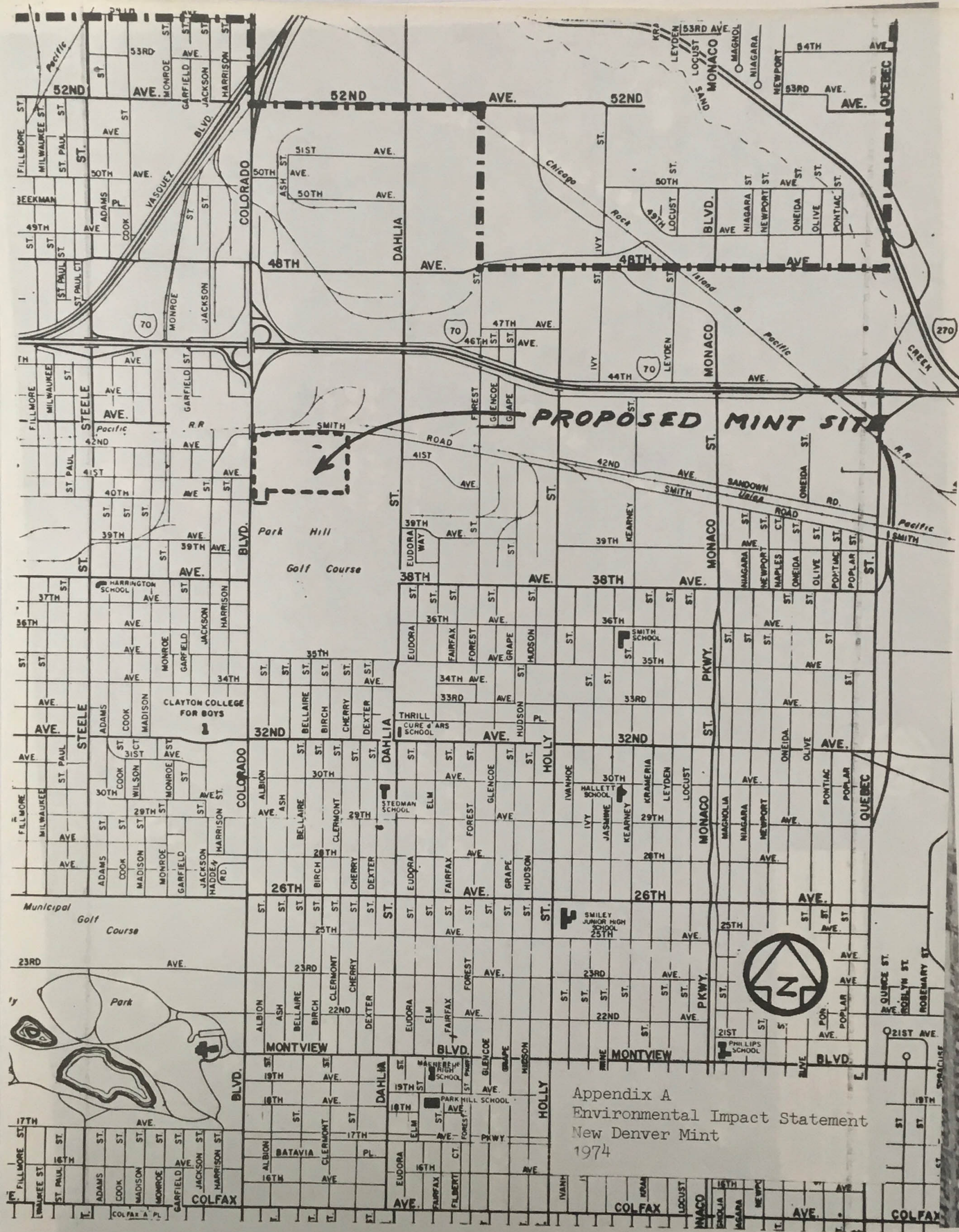
1. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
2. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
3. Denver 1983, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
4. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
5. CONCEPT: LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.
6. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.
7. Same as No. 2 above.
8. Same as No. 2 above.
9. Same as No. 7 above.
10. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.
11. Letter, Public Service Company of Colorado to Frank W. Shea, February 11, 1974.

Table of Documents Referred to in Draft Revised Environmental Impact Statement for the Location and Construction of the Proposed New Denver Mint.

The following is a list of the documents referred to in the Statement. As stated on Page 4 of the Statement, these documents are available for consultation by any interested person at the office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

1. Letter from the Mayor of the City and County of Denver to Frank W. Rhea, dated February 12, 1974.
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
6. CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.
7. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.
8. Same as No. 2 above.
9. Same as No. 2 above.
10. Same as No. 7 above.
11. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.
12. Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.





Proposed
Mint Site

PARK HILL
GOLF COURSE

DAHLIA ST.

COLORADO BLVD.

32ND AVE.

35TH AVE.

40TH AVE.

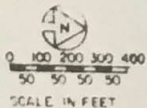
SMITH ROAD

INTERSTATE "70"

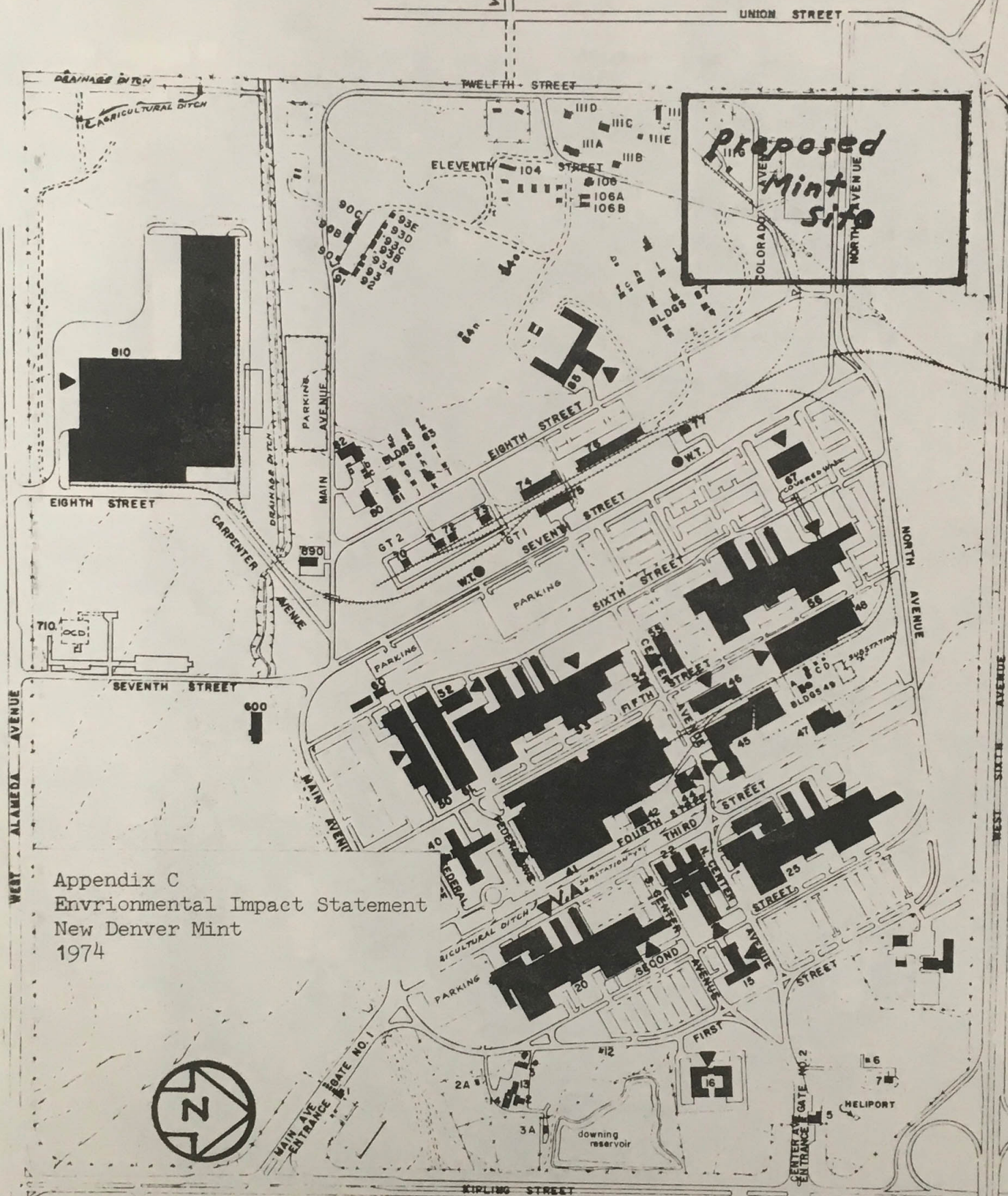
HOLLY ST.



Appendix B
Environmental Impact Statement
New Denver Mint
1974



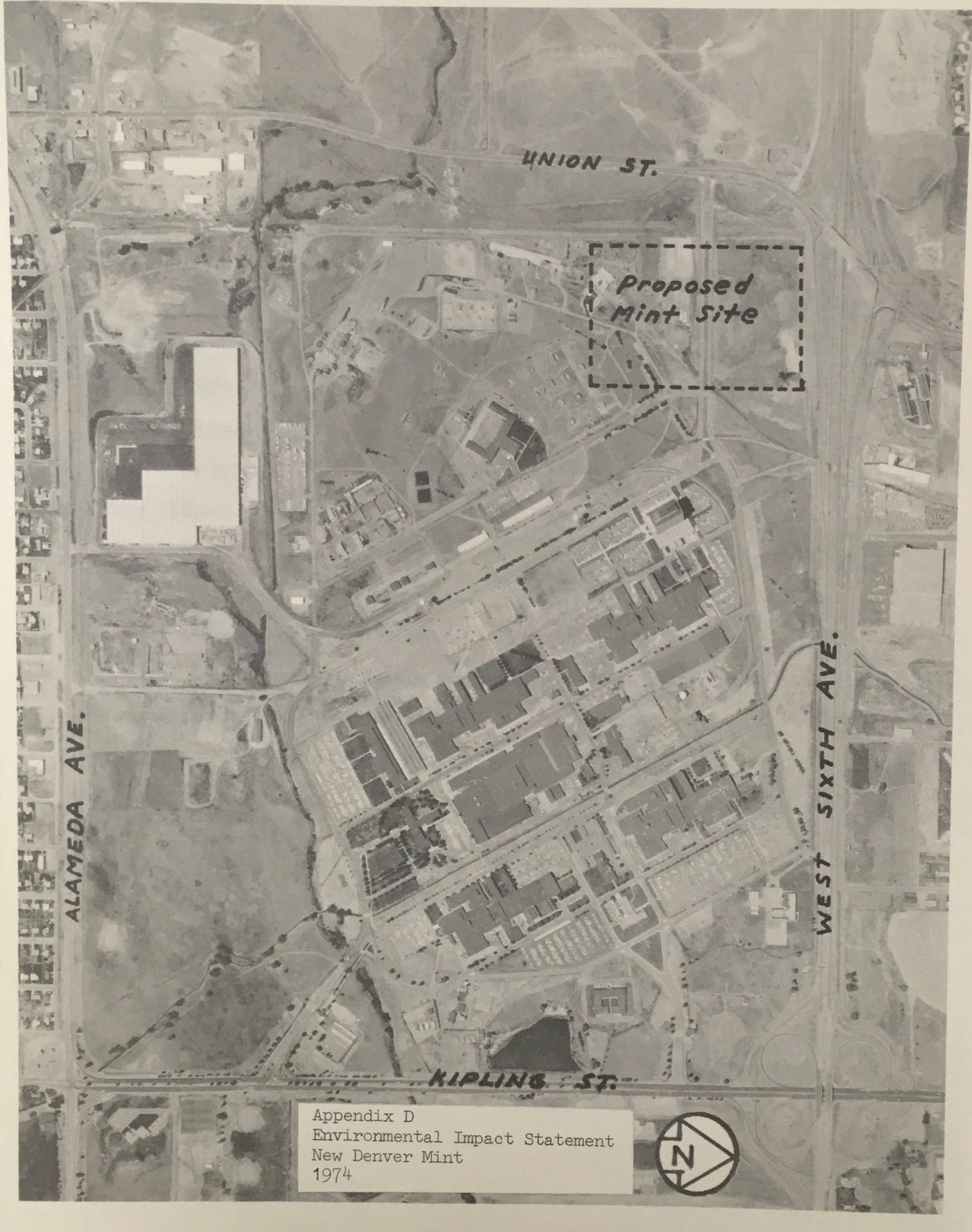
▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

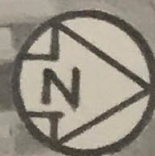
Proposed
Mint Site

ALAMEDA AVE.

WEST SIXTH AVE.

KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974



UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

No. of Employees

<u>Annual Salaries</u>	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	<u>Total</u>
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary	-	\$ 10,324
Average Annual General Schedule Salary	-	12,841
Average Annual Mint Employee Salary	-	10,839

Appendix E
Environmental Impact Statement
New United States Mint
1974

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

Responsible Office: Bureau of

Draft Revised Environmental Impact Statement

Frank W. Hux
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4000

1. Range of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Prepared by
Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204
The proposed action is the construction of high-bay, one-story buildings and auxiliary support administrative buildings, all comprising the new Denver Mint. The construction would consist of parking areas, utility areas, all necessary utilities and land areas. The total building space would be about 700,000 square feet. The Department is considering two possible locations for the new facility until comments on the proposed action have been received and evaluated. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposal. The proposal would assure the required production of high quality coins for the United States.

February 27, 1974

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Prepared for
U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220
The proposal is for the construction of a new facility. The environmental impacts of the proposal are (1) the increase in commuting traffic which the operation will bring, (2) the increase in stationary source and vehicle-generated air pollution, and (3) the various short-term impacts during construction.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is considering two possible sites, without favoring either location until comments on the proposed action have been received and evaluated. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

5. Comments Requested From:

Environmental Protection Agency	
Department of Agriculture	
Department of the Army, Corps of Engineers	
Department of Commerce	
Department of Health, Education and Welfare	
Department of Housing and Urban Development	
Department of the Interior	
Department of Transportation	
Advisory Council on Historic Preservation	
General Services Administration	
Office of Economic Opportunity	
State of Colorado Division of Commerce and Development	
State of Colorado Department of Health	
State of Colorado Department of Highways	
State of Colorado Division of Wildlife	
State Historical Society of Colorado	
Denver Regional Council of Governments (Regional Clearing House)	
Regional Transportation District	
Metropolitan Denver Sewage Disposal District Number One	
Urban Drainage and Flood Control District	
City and County of Denver	
Colorado Water Conservation Board	
Board of Water Commissioners, City and County of Denver	
City of Lakewood	
Jefferson County	
Rocky Mountain Center on Environment	
Colorado Federation of Women's Clubs	
Greater Park Hill Community Inc.	
Park Hill Improvement Association	
Thorne Ecological Institute	

6. Draft statement made available to the Council on Environmental Quality and the public on February 27, 1974.

Bibliography

Appendix A - Map of Park Hill Golf Course Area

Appendix B - Aerial Photograph of Park Hill Golf Course Area

Appendix C - Map of Denver Federal Center Area

Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Wage Scale of Denver City Employees

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-2-
DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year. More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the mission of producing domestic coins ranging in denomination from 1¢ to \$1, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

a. Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

b. Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins and supplies) and warehousing.

c. Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed and constructed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the new facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (1) A site consisting of a minimum of 30 acres.
- (2) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, would be in harmony with and enhance the area where it is located, and would provide for the important tourist aspects of the facility.

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until

comments on the proposed action have been received and evaluated. The two proposed alternative sites are:

Site A - The northwest corner of the Park Hill Golf Course in the City of Denver, near the intersection of Colorado Boulevard and Smith Road. (See attached map, Appendix A, and attached aerial photograph, Appendix B.)

Site B - The northwest corner of the Denver Federal Center in the City of Lakewood, near the intersection of Union Street and the West Sixth Avenue Freeway. (See attached map, Appendix C, and attached aerial photograph, Appendix D.)

The proposed sites would supersede the previously selected site along the west bank of the South Platte River, extending from about 18th Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement dated February 2, 1973. This site has been abandoned because of the incompatibility of having the new mint on a long, narrow strip of land immediately adjacent to the mainline north-south railroad trackage through Denver, which the Burlington Northern Railroad Company plans to construct on the west bank of this reach of the South Platte River. Due to the size of the proposed mint structures and constricted width in the center portion of the site, the layout of the mint on this property would require large building complexes at the two end portions of the area, with about 1,000 feet of open space in between. This situation, coupled with the planned raised grade of the railroad tracks to avoid potential South Platte River floods, would make the frequent heavy train traffic highly apparent to the many public visitors (approximately 250,000 per year at the present mint), to the mint personnel themselves, as well as from surrounding areas. This environmental condition would be completely out of harmony with the envisaged new mint, which is being planned to serve as an important tourist attraction and to reflect the importance and dignity of the United States Government coinage operations that would be performed in the facility. The Treasury Department had no knowledge of plans to place mainline railroad trackage in such close proximity to the mint property until October 1973, long after the formal South Platte site agreement between the City of Denver and the United States Government was signed on May 24, 1973. In addition, air pollution problems, related to this site, have developed since the original Environmental Impact Statement was prepared. These air pollution problems are similar in nature and magnitude to those for the Park Hill Golf Course site as discussed in paragraph 3.2b herein.

Authority for the construction of a new mint at Denver is contained in 31 U. S. Code 261 and 291.

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Park Hill Golf Course

The proposed site consists of about 35 acres located in the northwest corner of the Park Hill Golf Course at the intersection of Colorado Boulevard and Smith Road. The area is a portion of Clayton Trust land controlled by the Mayor of Denver and the Denver City Council as trustees. The proposed site is about 4 miles northeast of the Denver Central Business District. Presently the site is occupied by the Park Hill Golf Course. In order to provide the planned space for the new mint buildings and grounds, eight golf holes would have to be relocated to the currently vacant portions of the Clayton Trust Park Hill property. If this site is selected, the City of Denver plans to rebuild the golf holes affected so that there would be no time lost in availability of the 18-hole course for area golfers.¹

A rail line is near this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for rail service to the mint. Smith Road is lightly traveled and is crossed by similar tracks in the vicinity. The availability of the spur would be advantageous, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Road access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70. The intersection of these two main arteries is a clover-leaf, about 1,800 feet to the north of the proposed site.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage. There are no historic resources nor historic places which would be affected by the proposed project.

1 Letter from the Mayor of the City and County of Denver to Frank W. Rhea dated February 12, 1974.

A copy of each document referred to in this Statement may be consulted by any interested person at the Office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

To the north of the proposed site, across Smith Road and the railroad, is an industrial and warehousing area. The buildings are relatively new and barely visible from the proposed mint site. To the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This open recreational area would separate the mint site from the light industrial complex to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed nor relocated to make the site usable. It would, however, be necessary to construct a heating plant for the new mint at this site.

The proposed site is well drained and is not subject to flooding nor a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing and drilled pier foundations would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado Boulevard and Colfax Avenue.² Transportation would be by bus from this point to the proposed site, a distance of about 2 miles.

The climatic environment of the proposed site is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent. This site is relatively unfavorable from a meteorological and air pollution point of view. Further discussion of this matter is contained in the probable environmental impact section of this statement.

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

2 A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

b. Site B - Denver Federal Center

The proposed site consists of about 35 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site, which is approximately 8 miles west of the Denver Central Business District, is in Lakewood and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide for the new mint.

A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This would be advantageous, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Highway access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Place, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing storage buildings which are to be removed. There are no historic resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8

to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation into the Federal Center grounds is now provided by busses of Denver Metro Transit, using West Alameda and Kipling Street. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned on Union Street between Alameda Avenue and Sixth Avenue. There are presently about 6,500 employees at the Center. Thus, the Mint's approximately 800 employees would be joining with an existing base for public transportation.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area.

Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Park Hill Golf Course

It is considered that construction of a new mint on the Park Hill site would be in harmony with Federal, State, and City land use plans, policies and controls for the affected area. The site in question is designated as park or open space on the land use plan of the Denver Regional Council of Governments.³ However, the latest City of Denver land use plan⁴ shows approximately three-fourths of the site as industrial space and one-fourth as park or open space. By Resolution Number 6, passed by the Council on January 28, 1974, and approved by the Mayor on January 29, 1974, the Council of the City and County of Denver urged Mrs. Mary Brooks, Director of the Bureau of the Mint, to select the Park Hill Golf Course site for the location of the new Denver Mint.⁵ The new mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with the commercial and industrial activities to the north and east. Road and rail access into the north side of the site could

3 Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

4 Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.

5 Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.

be accomplished so as to minimize, if not completely eliminate, any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust property could be accomplished before mint construction commences (projected for late 1975) so that there would be no interruption in availability of golf course facilities. There is another major park, the Denver City Park, including a municipal golf course, about two miles south of the proposed site. The proposal would not involve displacement of residences nor commercial enterprises.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. There would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site and to the north, across Sixth Avenue, are zoned E72-77, Commercial, under the current approved zoning plan of the City of Lakewood. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments, which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD", a draft comprehensive plan for the future development of Lakewood.⁶

It is believed, on balance, that locating the new mint at this proposed site would be a beneficial land use in conformance with plans, policies and controls for the affected area.

6 CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.

3. The Probable Impact of the Proposed Action on the Environment.

The construction of a new mint on either of the proposed sites would have some effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows:

3.1 Transportation of Materials, Employees and Visitors into and out of the Facility.

a. Introduction

These introductory remarks pertain to both proposed sites. A new mint at either location would produce additional automotive traffic loads in the specific site vicinity and in the Denver metropolitan area in general. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 11 percent reside within a 2-mile radius of the existing mint, 50 percent within a 5-mile radius, and 80 percent within a 10-mile radius. After several years of operational status of the mint, it is expected that this residence pattern would be generally applicable to the proposed new locations, with some adjustment due to housing area locations as discussed below for each site. Presently, there are about 285 private automobiles used daily by employees in getting to and from work. These automobiles travel an average one-way distance of 6 miles, for a total daily vehicle miles traveled of 3,420.

For either location the additional traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for mint employees' private automobiles would be approximately 125 cars inbound and 125 cars outbound during each shift change (presently 7 A.M., 3 P.M., and 11 P.M.), 70 cars inbound at about 8 A.M. and 70 cars outbound at about 4:30 P.M. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity and the Denver metropolitan area in general, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. The tourist traffic, averaging an estimated 200 cars and 5 busses daily, would occur in the middle portion of the day and thus would naturally avoid peak periods. Mint traffic would terminate in its own parking areas and would not add to parking congestion in the site vicinity. There would be separate parking areas for visitors and for mint employees.

b. Site A - Park Hill Golf Course

While the overall road network in the vicinity of this site is excellent, the additional traffic generated by the mint would tend to coincide with the direction of existing traffic and would add to existing congested conditions on Colorado Boulevard and on I-70. In 1971 (the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 29,800 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles.⁷ Both of these arteries are saturated during peak traffic periods. Mint employee traffic would add 900 one-way trips at the immediate site location, if 1973 usage patterns are continued. As indicated above, mint traffic would be scheduled to avoid peak periods. Tourist traffic would add an average of 410 one-way trips daily.

This site is presently served by Denver Metro Transit busses operating on Colorado Boulevard, and it is expected that this service will be expanded and bus frequency increased, in accordance with the Summary Report issued in March 1973 by the Regional Transportation District.⁸ With respect to the rail based Personalized Rapid Transit System planned by the Regional Transportation District, the closest service would be on the Colfax Avenue line at the intersection of Colfax Avenue and Colorado Boulevard.⁹ Employees and visitors would have to transfer to busses at this point to proceed the remaining approximate 2 miles to the mint.

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration occurring in the immediate site area.

On the basis of housing availability locations and experience with respect to the present Denver Mint, it is expected that after several years of mint operations at this site, the center of gravity of mint employee residences would be about 2 miles to the southwest towards the City core. On this basis, the net daily additional VMT for the Park Hill site is estimated as follows:

900 one-way trips x 6 miles (average employee travel distance to center of gravity)	=	5,400
900 x 2 miles (center of gravity to mint site)	=	1,800
		7,200
Minus VMT for current operation at the existing Denver Mint	-	3,420
Net additional VMT		3,780

7 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

8 A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

It is considered that this is a maximum figure and that with increased development and use of public transportation systems the net additional VMT would be reduced appreciably for this site, as well as for the Denver Federal Center site.

c. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available to the Federal Center from Sixth Avenue, Alameda Avenue, Kipling Street and Union Street. The mint daily traffic of 900 employee one-way trips and 410 tourist one-way trips would add to existing loads on the access routes, which had daily averages as follows in 1971, according to State Highway Department counts: ¹⁰

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Union Street is currently being reconstructed to provide expansion from two to six lanes along the proposed mint portion of the Federal Center, so that existing peak-hour congestion on this route should be reduced.

The mint employee traffic generally would be counterdirectional to the mass of rush-hour movements, which are City-center oriented in the mornings and outbound oriented in the afternoons. The Regional Transportation District's plans call for service to the Federal Center by the Personalized Rapid Transit System, with a main station on Union Street between Alameda and the Sixth Avenue Freeway. Also, the total Federal Center employee population, in excess of 6,000, serves as a good base to justify early development of improved public bus systems, to the end that there might be reductions in employee use of private automobiles.

For this proposed location, it is expected, on the same bases as mentioned above for the Park Hill site, that after several years of operation the center of gravity of mint employee residences would be half-way between the site and the City core, or about 4 miles to the east of the proposed site. Similar to the discussion for Park Hill, the net daily additional vehicle miles traveled is estimated as follows:

900 one-way trips x 6 miles (average distance to center of gravity)	= 5,400
900 x 4 miles (center of gravity to mint site)	= <u>3,600</u>
	9,000
Minus current VMT	- <u>3,420</u>
Net additional VMT	5,580

10 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

3.2 Potential Pollution - Air, Water, Solid Wastes and Noise.

a. General

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential pollution problems associated with the construction and operation of the facility. These potential problems are similar for both of the proposed locations. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring new state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint would be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

b. Air Pollution - Stationary Source and Motor-Vehicle Generated

The new mint would generate some fumes from its metal melting and casting operations, from strip rolling and finishing and from blank annealing and cleaning. It is planned to install fume collection systems, employing hoods and ductwork, and to cleanse all fumes from the industrial operations using electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, State and Federal standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards. With this installed equipment, it is considered that air pollution effects from the industrial operations would be negligible.

The same negligible effects generally would be true for any potential stationary source air pollution from the facility heating plant. At the Denver Federal Center there is sufficient capacity available in the existing central heating plant to serve the proposed Mint. The Denver Federal Center boilers are capable of burning natural gas, No. 2 fuel oil and coal. In 1973 these boilers were tested and found in compliance with current State and Federal clean air emission standards while burning gas, fuel oil and high grade coal. However, in light of the current and long-range energy situation and air quality standards, the General Services

Administration is in the process of having a detailed engineering study made on available fuel sources in respect to environmental considerations to determine the best fuel(s) to be used at the Denver Federal Center. If clean fuels are not available in the future for operation of this heating plant, it may be necessary for the General Services Administration to install some type of precipitators or filters in the plant smokestacks. In any event, by the scheduled date of 1980 for the new Mint to be fully operational, full compliance of this facility with Federal and Colorado Clean Air Standards is planned. At Park Hill, it would be necessary to construct a heating plant for the new Mint only, which would be fired with relatively clean fuels if available. If not, precipitators would be installed in the smokestacks and the emissions would be comparable in quality and quantity to those caused if the mint load were added to the central plant of the Federal Center.

In addition to the stationary source pollutants, motor vehicle pollutants would be generated throughout the Denver metropolitan area by the net additional vehicle miles traveled of 3,780 for the Park Hill site and 5,580 miles for the Federal Center site. In each case, the additional VMT would be at maximum levels in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

Analysis and evaluation of the relative significance of the additional air pollution for the two proposed sites should be done in consideration of current levels of pollution and in consideration of on-going programs to improve air quality in the Denver area. The following data on ambient air quality are from "Statistical Analysis of Air Quality Data 1970, Suspended Particulates", published by the Colorado Department of Health, Air Pollution Control Division, on March 14, 1972:

"Statistical Analysis of Ambient Air Quality Data
Pollutant: Suspended Particulates
Unit: Micrograms Per Cubic Meter
Year: 1970

<u>Station</u>	<u>Quarter</u>	<u>No. Samples</u>	<u>Arithmetic Mean</u>	<u>Minimum/Maximum</u>
Lakewood	1	24	80	30/211
	2	27	67	15/149
	3	24	55	21/168
	4	20	70	30/109
	Total	95	68	15/211
School Admin. Building	1	23	149	74/255
	2	24	100	66/181
	3	23	98	40/189
	4	20	122	43/229
	Total	90	117	40/255 "

The Lakewood station is representative of air quality conditions at the proposed Federal Center site. The School Administration Building station is representative of air quality conditions at the proposed Park Hill site. The State of Colorado's long-term standard is an annual arithmetic mean of 70 micrograms per cubic meter of suspended particulates, and a short-term standard of a 24-hour maximum of 200 micrograms per cubic meter which is not to be exceeded more than once in a 12-month period.¹¹

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan
.....

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

Table I - Compilation of control strategy effects on carbon monoxide and hydrocarbon emissions.
(Tons per year)

(NOTE: This table, showing effects of the proposed State and EPA strategies in tons per year of carbon monoxide and hydrocarbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effects in percentage reductions from 1971 emissions.)

11 Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.

Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program..	31	23.0
2. Inspection/maintenance.....	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photochemical oxidants (hydrocarbons) by May 31, 1977."

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions. As the Park Hill site is in both demonstration areas, the net additional VMT caused by mint traffic, although minor in comparative scope, would be counter to the State of Colorado and Environmental Protection Agency programs to improve air quality in the areas adjacent to this proposed site.

Although the net additional VMT caused by mint traffic for the Federal Center site probably would be greater than for Park Hill, it is considered that the net adverse impact on air quality would be less with the new mint located at the Federal Center. This is based on the following reasons. The stationary pollutant source and the concentration of the vehicle source would be a significant distance away from existing high pollution levels and pollution sources, which are concentrated in the Denver Central Business District. The worst pollution levels are centered on Denver proper and occur when atmospheric conditions are stable and winds are light. This produces downslope winds roughly parallel to the Platte River from the southwest during the nighttime and early morning hours, and reversals from the north-northeast during the daytime as heating from the sun takes effect. Due to this peculiar meteorology of the Denver area, during periods of highest pollution levels, pollutants from the Federal Center area generally would tend to flow back and forth parallel to the South Platte Valley

considerably to the west of the high pollutant concentrations in the downtown area, whereas pollutants from the Park Hill vicinity would tend to reinforce these high concentrations to a small degree.

c. Other Potential Pollution Problems

Chemical effluent will be produced from the blank cleaning operations and from the assay laboratory. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses. All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

Attention must be given to the handling of process cooling water used in the metal casting and strip rolling operations. Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers or ponds and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to minimize fog-producing conditions. Any fog produced would disappear within the site boundaries.

Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable soils. Solid wastes will be processed within the plant, with major quantities of scrap metal being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to approved disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control.

There will be some noise pollution, particularly during the construction period, with a potential for noise pollution after project completion, if adequate precautions are not adopted. Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative isolation of the sites. Plant operational noise from outside the proposed sites boundaries would not be apparent, as the buildings will be designed with internal and external noise level controls to meet the requirements of the Federal Occupational Safety and Health Act. There would be some minor noise due to truck traffic and railroad switching engines servicing the rear of the facility.

3.3 Energy Use and Conservation.

Energy will be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado¹² has indicated would be available in required amounts at either location. The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects would occur gradually and would be influenced considerably by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability of gasoline for private automobiles and improvements and extensions of public transportation systems.

At both locations land for the proposed project is available, and water, sewerage, roads, electric power and other public services are already in existence as needed for the project.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact and tourist considerations.

With the mint at the Park Hill Golf Course, the secondary consequences would be almost nil. As discussed in paragraph 3.1 above, it is expected that employee residences would gradually change with time from the circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of 2 miles to the northeast. The facility would not be as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists

12 Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. There possibly would be a minor shift in money spent by tourists in the Central Business District to areas closer to the new mint.

For the Federal Center location there would be somewhat more of an impact regarding these factors. In this case, the employee residence center is anticipated to move about 4 miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to 150. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint employees currently in the low-income bracket (less than \$6,825 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary of \$10,839 is generally comparable with that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the City of Denver and in Jefferson, Adams and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT: LAKEWOOD", cited earlier, contains recommendations that the City of Lakewood shall establish a policy of requiring low- and moderate-income housing in future major developments and a goal that annual housing production shall include 10 percent low- and moderate-income units. It is expected that current mint employees would relocate slowly over a considerable time period, if at all, and that most of the new employees would come from the existing Denver metropolitan area work force base, so that there would not be a sudden influx of new residents into areas in close proximity to the mint site.

With respect to schools, the additional mint residents of Lakewood would add about 150 pupils to the school system, with similar minor changes caused in school populations throughout the metropolitan area. These adjustments and additions would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's present annual payroll of \$5 million to a center about 4 miles westward of its present location. Also, a minor amount of tourists' expenditures for lunches and car service would be shifted away from downtown Denver.

4. Alternatives to the Proposed Action.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The alternative of constructing the new mint at some location other than the two sites discussed in this statement has been explored in great detail for in excess of two years.

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other coin production facilities, the Philadelphia Mint and the San Francisco Assay Office.

b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are generally available at reasonable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the Park Hill Golf Course and the Denver Federal Center have been selected for further consideration for the following reasons:

Site A - Park Hill Golf Course

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area.

Site B - Denver Federal Center

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in public ownership.

d. The site would have fair access for tourists and official visitors.

e. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

a. South Platte River from about 18th Avenue to Speer Boulevard.

This location had been selected for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver along the west bank of the South Platte River have made this site untenable for the reasons discussed previously in this statement and which are summarized here for convenience. Due to the long, narrow configuration of the area, and the restricted width at about site center between the Valley Highway and the sharp bend in the South Platte River, layout of the new mint on this property would result in one large building complex on the northern portion and another building complex on the southern portion, with about 1,000 feet of relatively low, open space in between. The frequent through and local service train traffic, operating on tracks immediately adjacent to the mint structures, would produce visual and noise pollution to such an extent that there would not be an appropriate environment for the envisaged mint structures and grounds, which are planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

b. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

- c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the City.

- d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

- e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate environment for the mint.

- f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

- g. Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

- h. Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal make it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot Be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M and 3 P.M. daily. Traffic increases in the vicinity of the Park Hill site probably would create more of a problem because of existing congestion on I-70 and Colorado Boulevard.

Additional stationary source and vehicle-generated pollutants would be of about the same quantity for both locations. The additional pollutants in the Park Hill area are of more concern because of existing high air pollution levels in the vicinity and Federal/State plans to reduce vehicle miles traveled in this area.

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal, which do not appear to be of a major nature, are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce the traffic congestion and air pollution adverse impacts.

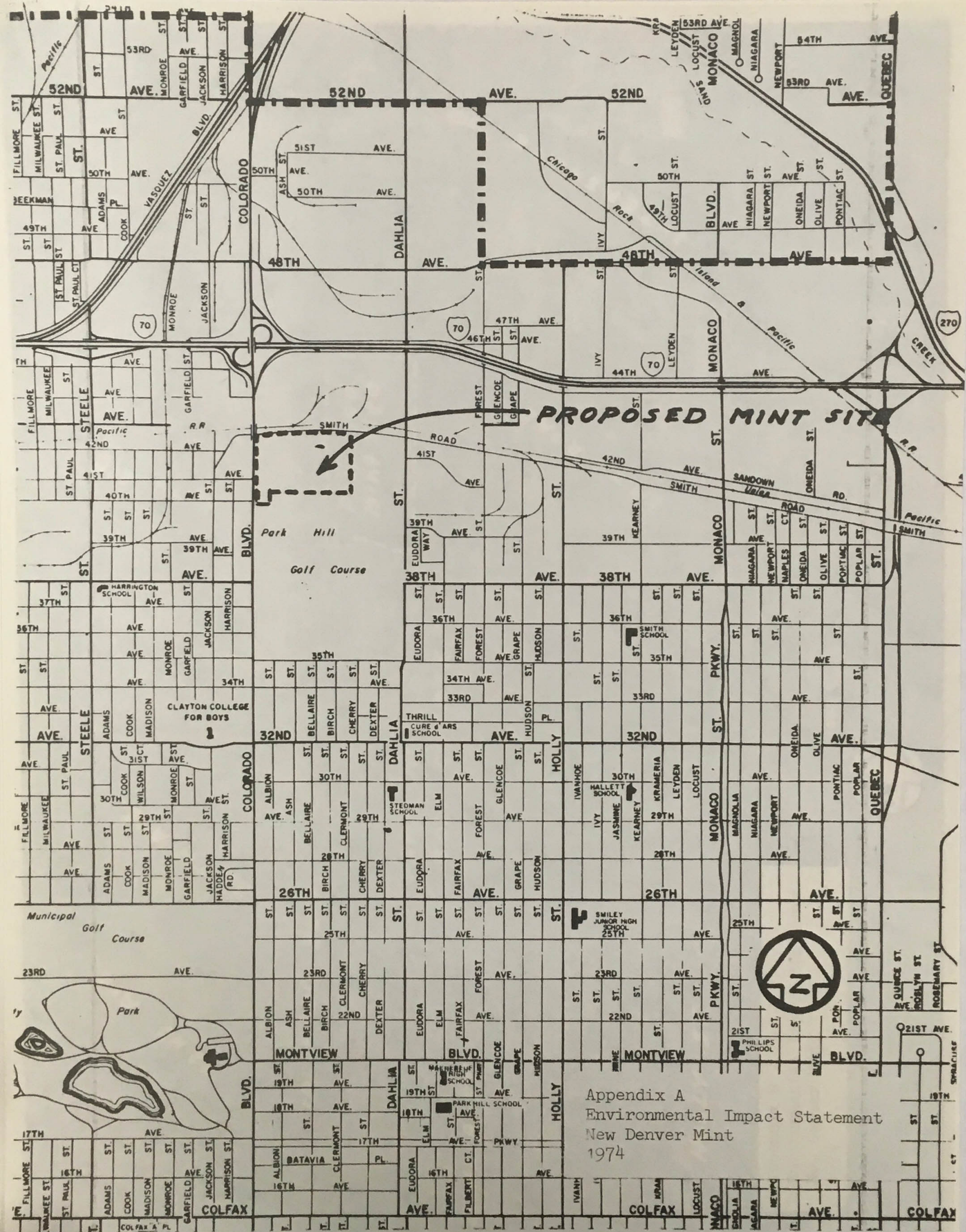
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1973.
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
6. CONCEPT LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.
7. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.
8. Same as No. 2 above.
9. Same as No. 2 above.
10. Same as No. 7 above.
11. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-3.
12. Letter, Public Service Company of Colorado to Frank W. Rhee, February 11, 1974.

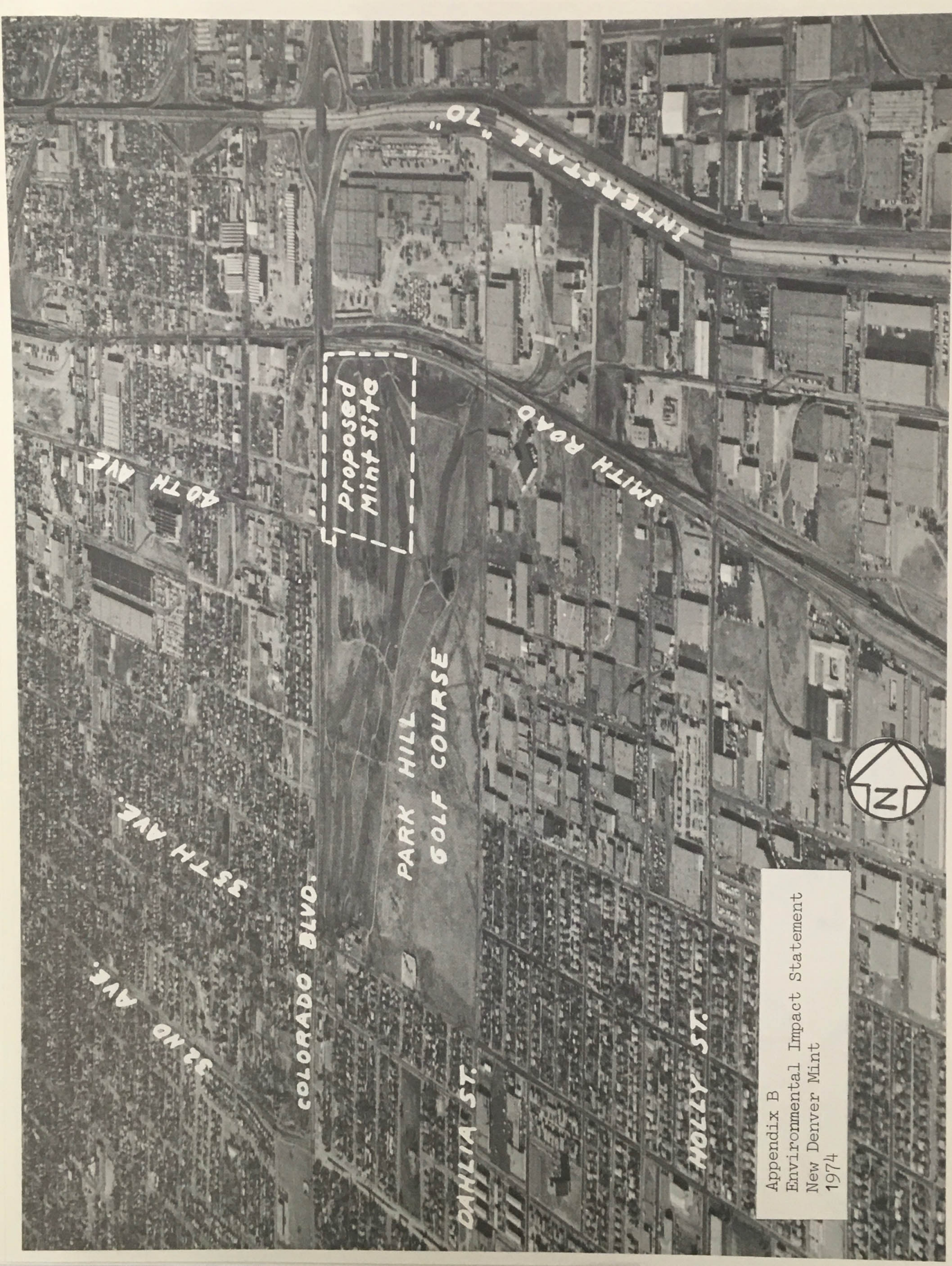
Table of Documents Referred to in Draft Revised Environmental Impact Statement for the Location and Construction of the Proposed New Denver Mint.

The following is a list of the documents referred to in the Statement. As stated on Page 4 of the Statement, these documents are available for consultation by any interested person at the office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

1. Letter from the Mayor of the City and County of Denver to Frank W. Rhea, dated February 12, 1974.
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
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Proposed
Mint Site

PARK HILL
GOLF COURSE

DAHLIA ST.

HOLLY ST.

COLORADO BLVD.

32ND AVE.
35TH AVE.

40TH AVE.

INTERSTATE "70"

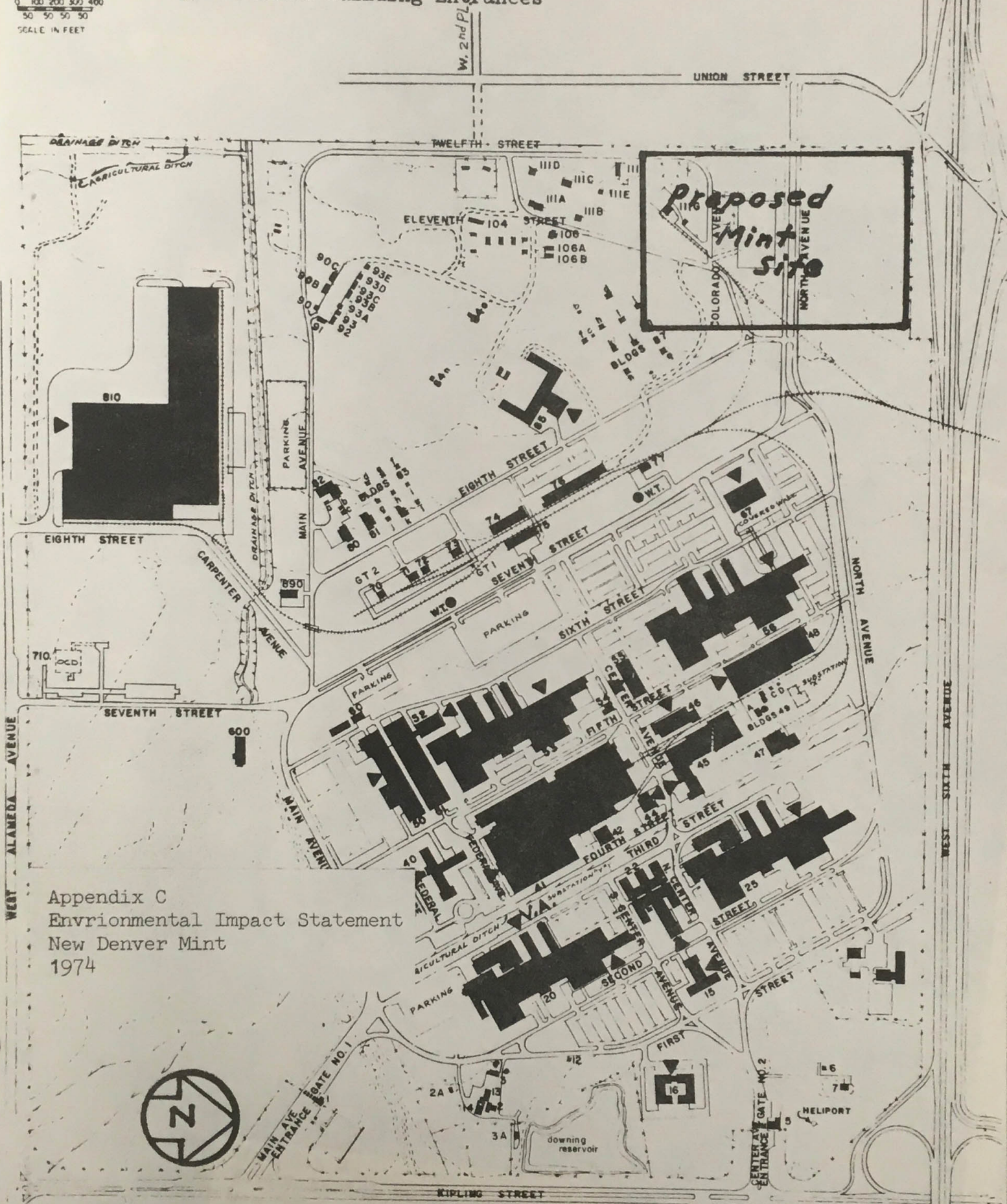
SMITH ROAD



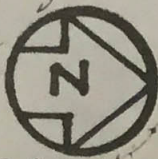
Appendix B
Environmental Impact Statement
New Denver Mint
1974



▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974



DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

Proposed
Mint Site

ALAMEDA AVE.

WEST SIXTH AVE.

KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974



UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

<u>No. of Employees</u>			
<u>Annual Salaries</u>	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	<u>Total</u>
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary - \$ 10,324
Average Annual General Schedule Salary - 12,841
Average Annual Mint Employee Salary - 10,839

NEW UNITED STATES MINT
DENVER, COLORADO

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

Draft Revised Environmental Impact Statement

Frank W. Rhee
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 497-4556

Range of Action: (X) Administrative Action () Legislative Action

Description of Action: Prepared by
Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204
The proposed facility should provide an appropriate and beneficial use of either potential site. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposal. The proposal would assure the required production of high quality coins for the United States.

February 27, 1974

Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Prepared for
U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220
The proposed facility should provide an appropriate and beneficial use of either potential site. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposal. The proposal would assure the required production of high quality coins for the United States.

Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is considering two possible sites, without favoring either location until comments on the proposed action have been received and evaluated. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

a. Continuation of the operation of the present Denver Mint without constructing a new facility.

b. Construction of a new mint at some other location.

5. Comments Requested From:

Environmental Protection Agency	
Department of Agriculture	
Department of the Army, Corps of Engineers	1
Department of Commerce	
Department of Health, Education and Welfare	1
Department of Housing and Urban Development	
Department of the Interior	4
Department of Transportation	
Advisory Council on Historic Preservation	
General Services Administration	7
Office of Economic Opportunity	
State of Colorado Division of Commerce and Development	9
State of Colorado Department of Health	
State of Colorado Department of Highways	
State of Colorado Division of Wildlife	9
State Historical Society of Colorado	
Denver Regional Council of Governments (Regional Clearing House)	
Regional Transportation District	
Metropolitan Denver Sewage Disposal District Number One	17
Urban Drainage and Flood Control District	
City and County of Denver	17
Colorado Water Conservation Board	
Board of Water Commissioners, City and County of Denver	18
City of Lakewood	
Jefferson County	21
Rocky Mountain Center on Environment	
Colorado Federation of Women's Clubs	
Greater Park Hill Community Inc.	22
Park Hill Improvement Association	
Thorne Ecological Institute	22
6. Draft statement made available to the Council on Environmental Quality and the public on February 27, 1974.	23

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Appendix B - Aerial Photograph of Park Hill Golf Course Area

Appendix C - Map of Denver Federal Center Area

Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Page Scale of Denver Mint Employees

DRAFT REVISOR'S STATEMENT
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 DENVER, COLORADO

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	Appendix E - Classification and Wage Scale of Denver Mint Employees	

DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year. More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the mission of producing domestic coins ranging in denomination from 1¢ to \$1, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

a. Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

b. Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins and supplies) and warehousing.

c. Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed and constructed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the new facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (1) A site consisting of a minimum of 30 acres.
- (2) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, would be in harmony with and enhance the area where it is located, and would provide for the important tourist aspects of the facility.

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until

comments on the proposed action have been received and evaluated. The two proposed alternative sites are:

Site A - The northwest corner of the Park Hill Golf Course in the City of Denver, near the intersection of Colorado Boulevard and Smith Road. (See attached map, Appendix A, and attached aerial photograph, Appendix B.)

Site B - The northwest corner of the Denver Federal Center in the City of Lakewood, near the intersection of Union Street and the West Sixth Avenue Freeway. (See attached map, Appendix C, and attached aerial photograph, Appendix D.)

The proposed sites would supersede the previously selected site along the west bank of the South Platte River, extending from about 18th Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement dated February 2, 1973. This site has been abandoned because of the incompatibility of having the new mint on a long, narrow strip of land immediately adjacent to the mainline north-south railroad trackage through Denver, which the Burlington Northern Railroad Company plans to construct on the west bank of this reach of the South Platte River. Due to the size of the proposed mint structures and constricted width in the center portion of the site, the layout of the mint on this property would require large building complexes at the two end portions of the area, with about 1,000 feet of open space in between. This situation, coupled with the planned raised grade of the railroad tracks to avoid potential South Platte River floods, would make the frequent heavy train traffic highly apparent to the many public visitors (approximately 250,000 per year at the present mint), to the mint personnel themselves, as well as from surrounding areas. This environmental condition would be completely out of harmony with the envisaged new mint, which is being planned to serve as an important tourist attraction and to reflect the importance and dignity of the United States Government coinage operations that would be performed in the facility. The Treasury Department had no knowledge of plans to place mainline railroad trackage in such close proximity to the mint property until October 1973, long after the formal South Platte site agreement between the City of Denver and the United States Government was signed on May 24, 1973. In addition, air pollution problems, related to this site, have developed since the original Environmental Impact Statement was prepared. These air pollution problems are similar in nature and magnitude to those for the Park Hill Golf Course site as discussed in paragraph 3.2b herein.

Authority for the construction of a new mint at Denver is contained in 31 U. S. Code 261 and 291.

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Park Hill Golf Course

The proposed site consists of about 35 acres located in the northwest corner of the Park Hill Golf Course at the intersection of Colorado Boulevard and Smith Road. The area is a portion of Clayton Trust land controlled by the Mayor of Denver and the Denver City Council as trustees. The proposed site is about 4 miles northeast of the Denver Central Business District. Presently the site is occupied by the Park Hill Golf Course. In order to provide the planned space for the new mint buildings and grounds, eight golf holes would have to be relocated to the currently vacant portions of the Clayton Trust Park Hill property. If this site is selected, the City of Denver plans to rebuild the golf holes affected so that there would be no time lost in availability of the 18-hole course for area golfers.¹

A rail line is near this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for rail service to the mint. Smith Road is lightly traveled and is crossed by similar tracks in the vicinity. The availability of the spur would be advantageous, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Road access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70. The intersection of these two main arteries is a clover-leaf, about 1,800 feet to the north of the proposed site.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage. There are no historic resources nor historic places which would be affected by the proposed project.

1 Letter from the Mayor of the City and County of Denver to Frank W. Rhea dated February 12, 1974.

A copy of each document referred to in this Statement may be consulted by any interested person at the Office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

To the north of the proposed site, across Smith Road and the railroad, is an industrial and warehousing area. The buildings are relatively new and barely visible from the proposed mint site. To the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This open recreational area would separate the mint site from the light industrial complex to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed nor relocated to make the site usable. It would, however, be necessary to construct a heating plant for the new mint at this site.

The proposed site is well drained and is not subject to flooding nor a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing and drilled pier foundations would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado Boulevard and Colfax Avenue.² Transportation would be by bus from this point to the proposed site, a distance of about 2 miles.

The climatic environment of the proposed site is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent. This site is relatively unfavorable from a meteorological and air pollution point of view. Further discussion of this matter is contained in the probable environmental impact section of this statement.

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

2 A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

b. Site B - Denver Federal Center

The proposed site consists of about 35 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site, which is approximately 8 miles west of the Denver Central Business District, is in Lakewood and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide for the new mint.

A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This would be advantageous, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Highway access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Place, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing storage buildings which are to be removed. There are no historic resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8

to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation into the Federal Center grounds is now provided by busses of Denver Metro Transit, using West Alameda and Kipling Street. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned on Union Street between Alameda Avenue and Sixth Avenue. There are presently about 6,500 employees at the Center. Thus, the Mint's approximately 800 employees would be joining with an existing base for public transportation.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area.

Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Park Hill Golf Course

It is considered that construction of a new mint on the Park Hill site would be in harmony with Federal, State, and City land use plans, policies and controls for the affected area. The site in question is designated as park or open space on the land use plan of the Denver Regional Council of Governments.³ However, the latest City of Denver land use plan⁴ shows approximately three-fourths of the site as industrial space and one-fourth as park or open space. By Resolution Number 6, passed by the Council on January 28, 1974, and approved by the Mayor on January 29, 1974, the Council of the City and County of Denver urged Mrs. Mary Brooks, Director of the Bureau of the Mint, to select the Park Hill Golf Course site for the location of the new Denver Mint.⁵ The new mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with the commercial and industrial activities to the north and east. Road and rail access into the north side of the site could

3 Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

4 Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.

5 Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.

be accomplished so as to minimize, if not completely eliminate, any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust property could be accomplished before mint construction commences (projected for late 1975) so that there would be no interruption in availability of golf course facilities. There is another major park, the Denver City Park, including a municipal golf course, about two miles south of the proposed site. The proposal would not involve displacement of residences nor commercial enterprises.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. There would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site and to the north, across Sixth Avenue, are zoned E72-77, Commercial, under the current approved zoning plan of the City of Lakewood. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments, which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD", a draft comprehensive plan for the future development of Lakewood.⁶

It is believed, on balance, that locating the new mint at this proposed site would be a beneficial land use in conformance with plans, policies and controls for the affected area.

⁶ CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.

3. The Probable Impact of the Proposed Action on the Environment.

The construction of a new mint on either of the proposed sites would have some effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows:

3.1 Transportation of Materials, Employees and Visitors into and out of the Facility.

a. Introduction

These introductory remarks pertain to both proposed sites. A new mint at either location would produce additional automotive traffic loads in the specific site vicinity and in the Denver metropolitan area in general. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 11 percent reside within a 2-mile radius of the existing mint, 50 percent within a 5-mile radius, and 80 percent within a 10-mile radius. After several years of operational status of the mint, it is expected that this residence pattern would be generally applicable to the proposed new locations, with some adjustment due to housing area locations as discussed below for each site. Presently, there are about 285 private automobiles used daily by employees in getting to and from work. These automobiles travel an average one-way distance of 6 miles, for a total daily vehicle miles traveled of 3,420.

For either location the additional traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for mint employees' private automobiles would be approximately 125 cars inbound and 125 cars outbound during each shift change (presently 7 A.M., 3 P.M., and 11 P.M.), 70 cars inbound at about 8 A.M. and 70 cars outbound at about 4:30 P.M. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity and the Denver metropolitan area in general, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. The tourist traffic, averaging an estimated 200 cars and 5 busses daily, would occur in the middle portion of the day and thus would naturally avoid peak periods. Mint traffic would terminate in its own parking areas and would not add to parking congestion in the site vicinity. There would be separate parking areas for visitors and for mint employees.

b. Site A - Park Hill Golf Course

While the overall road network in the vicinity of this site is excellent, the additional traffic generated by the mint would tend to coincide with the direction of existing traffic and would add to existing congested conditions on Colorado Boulevard and on I-70. In 1971 (the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 29,800 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles.⁷ Both of these arteries are saturated during peak traffic periods. Mint employee traffic would add 900 one-way trips at the immediate site location, if 1973 usage patterns are continued. As indicated above, mint traffic would be scheduled to avoid peak periods. Tourist traffic would add an average of 410 one-way trips daily.

This site is presently served by Denver Metro Transit busses operating on Colorado Boulevard, and it is expected that this service will be expanded and bus frequency increased, in accordance with the Summary Report issued in March 1973 by the Regional Transportation District.⁸ With respect to the rail based Personalized Rapid Transit System planned by the Regional Transportation District, the closest service would be on the Colfax Avenue line at the intersection of Colfax Avenue and Colorado Boulevard.⁹ Employees and visitors would have to transfer to busses at this point to proceed the remaining approximate 2 miles to the mint.

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration occurring in the immediate site area.

On the basis of housing availability locations and experience with respect to the present Denver Mint, it is expected that after several years of mint operations at this site, the center of gravity of mint employee residences would be about 2 miles to the southwest towards the City core. On this basis, the net daily additional VMT for the Park Hill site is estimated as follows:

900 one-way trips x 6 miles (average employee travel distance to center of gravity)	=	5,400
900 x 2 miles (center of gravity to mint site)	=	1,800
		7,200
Minus VMT for current operation at the existing Denver Mint	-	3,420
Net additional VMT		3,780

7 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

8 A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

9 Ibid.

It is considered that this is a maximum figure and that with increased development and use of public transportation systems the net additional VMT would be reduced appreciably for this site, as well as for the Denver Federal Center site.

c. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available to the Federal Center from Sixth Avenue, Alameda Avenue, Kipling Street and Union Street. The mint daily traffic of 900 employee one-way trips and 410 tourist one-way trips would add to existing loads on the access routes, which had daily averages as follows in 1971, according to State Highway Department counts: ¹⁰

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Union Street is currently being reconstructed to provide expansion from two to six lanes along the proposed mint portion of the Federal Center, so that existing peak-hour congestion on this route should be reduced.

The mint employee traffic generally would be counterdirectional to the mass of rush-hour movements, which are City-center oriented in the mornings and outbound oriented in the afternoons. The Regional Transportation District's plans call for service to the Federal Center by the Personalized Rapid Transit System, with a main station on Union Street between Alameda and the Sixth Avenue Freeway. Also, the total Federal Center employee population, in excess of 6,000, serves as a good base to justify early development of improved public bus systems, to the end that there might be reductions in employee use of private automobiles.

For this proposed location, it is expected, on the same bases as mentioned above for the Park Hill site, that after several years of operation the center of gravity of mint employee residences would be half-way between the site and the City core, or about 4 miles to the east of the proposed site. Similar to the discussion for Park Hill, the net daily additional vehicle miles traveled is estimated as follows:

900 one-way trips x 6 miles (average distance to center of gravity)	=	5,400
900 x 4 miles (center of gravity to mint site)	=	<u>3,600</u>
		9,000
Minus current VMT	-	<u>3,420</u>
Net additional VMT		5,580

10 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

3.2 Potential Pollution - Air, Water, Solid Wastes and Noise.

a. General

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential pollution problems associated with the construction and operation of the facility. These potential problems are similar for both of the proposed locations. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring new state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint would be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

b. Air Pollution - Stationary Source and Motor-Vehicle Generated

The new mint would generate some fumes from its metal melting and casting operations, from strip rolling and finishing and from blank annealing and cleaning. It is planned to install fume collection systems, employing hoods and ductwork, and to cleanse all fumes from the industrial operations using electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, State and Federal standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards. With this installed equipment, it is considered that air pollution effects from the industrial operations would be negligible.

The same negligible effects generally would be true for any potential stationary source air pollution from the facility heating plant. At the Denver Federal Center there is sufficient capacity available in the existing central heating plant to serve the proposed Mint. The Denver Federal Center boilers are capable of burning natural gas, No. 2 fuel oil and coal. In 1973 these boilers were tested and found in compliance with current State and Federal clean air emission standards while burning gas, fuel oil and high grade coal. However, in light of the current and long-range energy situation and air quality standards, the General Services

Administration is in the process of having a detailed engineering study made on available fuel sources in respect to environmental considerations to determine the best fuel(s) to be used at the Denver Federal Center. If clean fuels are not available in the future for operation of this heating plant, it may be necessary for the General Services Administration to install some type of precipitators or filters in the plant smokestacks. In any event, by the scheduled date of 1980 for the new Mint to be fully operational, full compliance of this facility with Federal and Colorado Clean Air Standards is planned. At Park Hill, it would be necessary to construct a heating plant for the new Mint only, which would be fired with relatively clean fuels if available. If not, precipitators would be installed in the smokestacks and the emissions would be comparable in quality and quantity to those caused if the mint load were added to the central plant of the Federal Center.

In addition to the stationary source pollutants, motor vehicle pollutants would be generated throughout the Denver metropolitan area by the net additional vehicle miles traveled of 3,780 for the Park Hill site and 5,580 miles for the Federal Center site. In each case, the additional VMT would be at maximum levels in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

Analysis and evaluation of the relative significance of the additional air pollution for the two proposed sites should be done in consideration of current levels of pollution and in consideration of on-going programs to improve air quality in the Denver area. The following data on ambient air quality are from "Statistical Analysis of Air Quality Data 1970, Suspended Particulates", published by the Colorado Department of Health, Air Pollution Control Division, on March 14, 1972:

"Statistical Analysis of Ambient Air Quality Data
Pollutant: Suspended Particulates
Unit: Micrograms Per Cubic Meter
Year: 1970

Station	Quarter	No. Samples	Arithmetic Mean	Minimum/Maximum
Lakewood	1	24	80	30/211
	2	27	67	15/149
	3	24	55	21/168
	4	20	70	30/109
	Total	95	68	15/211
School Admin. Building				
	1	23	149	74/255
	2	24	100	66/181
	3	23	98	40/189
	4	20	122	43/229
	Total	90	117	40/255 "

The Lakewood station is representative of air quality conditions at the proposed Federal Center site. The School Administration Building station is representative of air quality conditions at the proposed Park Hill site. The State of Colorado's long-term standard is an annual arithmetic mean of 70 micrograms per cubic meter of suspended particulates, and a short-term standard of a 24-hour maximum of 200 micrograms per cubic meter which is not to be exceeded more than once in a 12-month period.¹¹

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan
.....

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

Table I - Compilation of control strategy effects on carbon monoxide and hydrocarbon emissions.
(Tons per year)

(NOTE: This table, showing effects of the proposed State and EPA strategies in tons per year of carbon monoxide and hydrocarbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effects in percentage reductions from 1971 emissions.)

¹¹ Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.

Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program..	31	23.0
2. Inspection/maintenance.....	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photochemical oxidants (hydrocarbons) by May 31, 1977."

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions. As the Park Hill site is in both demonstration areas, the net additional VMT caused by mint traffic, although minor in comparative scope, would be counter to the State of Colorado and Environmental Protection Agency programs to improve air quality in the areas adjacent to this proposed site.

Although the net additional VMT caused by mint traffic for the Federal Center site probably would be greater than for Park Hill, it is considered that the net adverse impact on air quality would be less with the new mint located at the Federal Center. This is based on the following reasons. The stationary pollutant source and the concentration of the vehicle source would be a significant distance away from existing high pollution levels and pollution sources, which are concentrated in the Denver Central Business District. The worst pollution levels are centered on Denver proper and occur when atmospheric conditions are stable and winds are light. This produces downslope winds roughly parallel to the Platte River from the south-southwest during the nighttime and early morning hours, and reversals from the north-northeast during the daytime as heating from the sun takes effect. Due to this peculiar meteorology of the Denver area, during periods of highest pollution levels, pollutants from the Federal Center area generally would tend to flow back and forth parallel to the South Platte Valley

considerably to the west of the high pollutant concentrations in the downtown area, whereas pollutants from the Park Hill vicinity would tend to reinforce these high concentrations to a small degree.

c. Other Potential Pollution Problems

Chemical effluent will be produced from the blank cleaning operations and from the assay laboratory. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses. All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

Attention must be given to the handling of process cooling water used in the metal casting and strip rolling operations. Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers or ponds and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to minimize fog-producing conditions. Any fog produced would disappear within the site boundaries.

Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable soils. Solid wastes will be processed within the plant, with major quantities of scrap metal being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to approved disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control.

There will be some noise pollution, particularly during the construction period, with a potential for noise pollution after project completion, if adequate precautions are not adopted. Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative isolation of the sites. Plant operational noise from outside the proposed sites boundaries would not be apparent, as the buildings will be designed with internal and external noise level controls to meet the requirements of the Federal Occupational Safety and Health Act. There would be some minor noise due to truck traffic and railroad switching engines servicing the rear of the facility.

3.3 Energy Use and Conservation.

Energy will be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado has indicated would be available in required amounts at either location.¹² The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects would occur gradually and would be influenced considerably by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability of gasoline for private automobiles and improvements and extensions of public transportation systems.

At both locations land for the proposed project is available, and water, sewerage, roads, electric power and other public services are already in existence as needed for the project.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact and tourist considerations.

With the mint at the Park Hill Golf Course, the secondary consequences would be almost nil. As discussed in paragraph 3.1 above, it is expected that employee residences would gradually change with time from the circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of 2 miles to the northeast. The facility would not be as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists

¹² Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. There possibly would be a minor shift in money spent by tourists in the Central Business District to areas closer to the new mint.

For the Federal Center location there would be somewhat more of an impact regarding these factors. In this case, the employee residence center is anticipated to move about 4 miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to 150. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint employees currently in the low-income bracket (less than \$6,825 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary of \$10,839 is generally comparable with that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the City of Denver and in Jefferson, Adams and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT: LAKEWOOD", cited earlier, contains recommendations that the City of Lakewood shall establish a policy of requiring low- and moderate-income housing in future major developments and a goal that annual housing production shall include 10 percent low- and moderate-income units. It is expected that current mint employees would relocate slowly over a considerable time period, if at all, and that most of the new employees would come from the existing Denver metropolitan area work force base, so that there would not be a sudden influx of new residents into areas in close proximity to the mint site.

With respect to schools, the additional mint residents of Lakewood would add about 150 pupils to the school system, with similar minor changes caused in school populations throughout the metropolitan area. These adjustments and additions would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's present annual payroll of \$5 million to a center about 4 miles westward of its present location. Also, a minor amount of tourists' expenditures for lunches and car service would be shifted away from downtown Denver.

4. Alternatives to the Proposed Action.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The alternative of constructing the new mint at some location other than the two sites discussed in this statement has been explored in great detail for in excess of two years.

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other coin production facilities, the Philadelphia Mint and the San Francisco Assay Office.

b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are generally available at reasonable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the Park Hill Golf Course and the Denver Federal Center have been selected for further consideration for the following reasons:

Site A - Park Hill Golf Course

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area.

Site B - Denver Federal Center

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in public ownership.

d. The site would have fair access for tourists and official visitors.

e. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

a. South Platte River from about 18th Avenue to Speer Boulevard.

This location had been selected for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver along the west bank of the South Platte River have made this site untenable for the reasons discussed previously in this statement and which are summarized here for convenience. Due to the long, narrow configuration of the area, and the restricted width at about site center between the Valley Highway and the sharp bend in the South Platte River, layout of the new mint on this property would result in one large building complex on the northern portion and another building complex on the southern portion, with about 1,000 feet of relatively low, open space in between. The frequent through and local service train traffic, operating on tracks immediately adjacent to the mint structures, would produce visual and noise pollution to such an extent that there would not be an appropriate environment for the envisaged mint structures and grounds, which are planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

b. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the City.

d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate environment for the mint.

f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

g. Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal make it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot Be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M and 3 P.M. daily. Traffic increases in the vicinity of the Park Hill site probably would create more of a problem because of existing congestion on I-70 and Colorado Boulevard.

Additional stationary source and vehicle-generated pollutants would be of about the same quantity for both locations. The additional pollutants in the Park Hill area are of more concern because of existing high air pollution levels in the vicinity and Federal/State plans to reduce vehicle miles traveled in this area.

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal, which do not appear to be of a major nature, are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce the traffic congestion and air pollution adverse impacts.

February 12, 1974.

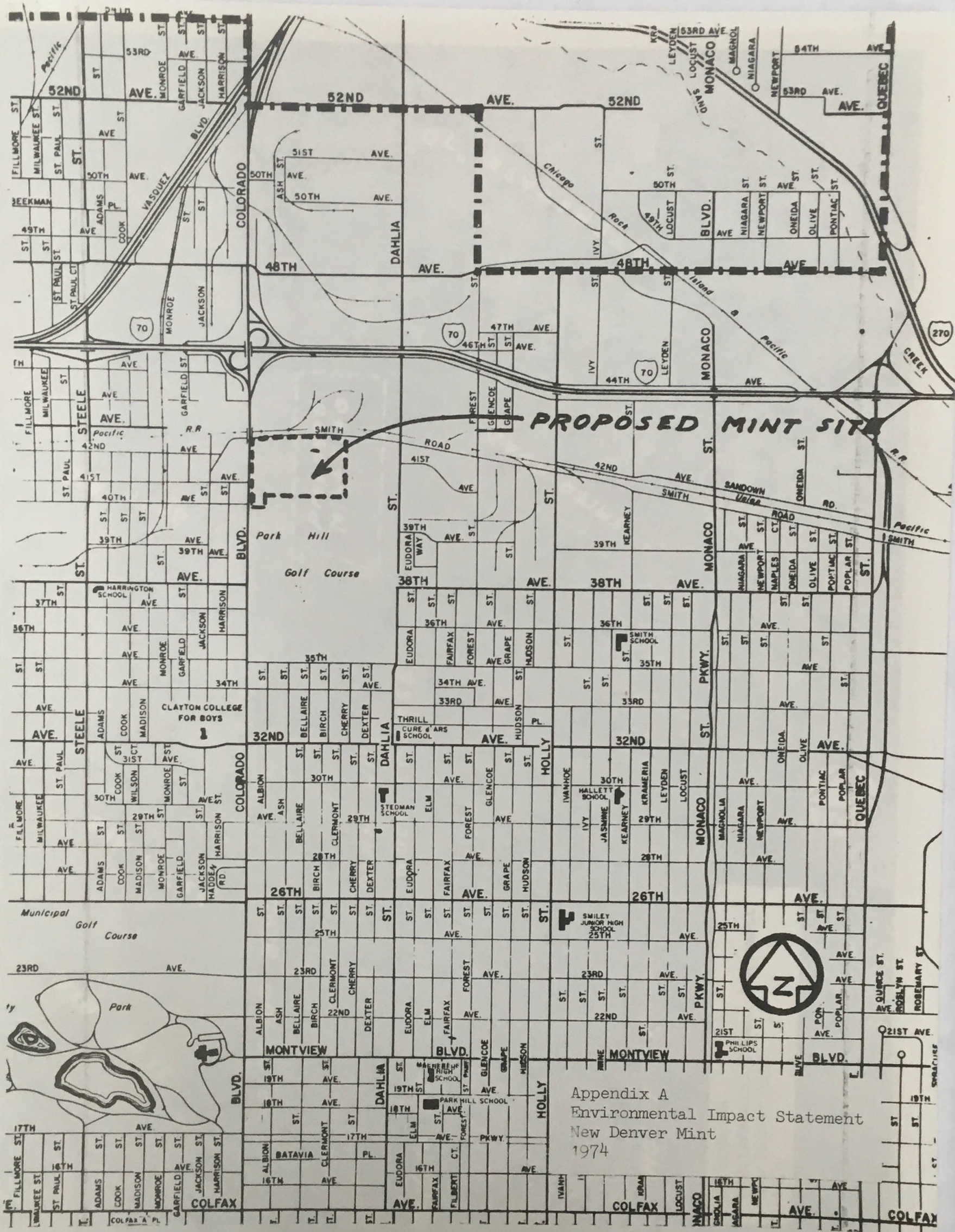
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
5. Resolution No. 6, Series of 1976. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
6. CONCEPT: LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.
7. Letter, Colorado State Department of Highways to the Treasury Department, February 12, 1974.
8. Same as No. 2 above.
9. Same as No. 2 above.
10. Same as No. 7 above.
11. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.
12. Letter, Public Service Company of Colorado to Frank W. Khas, February 11, 1974.

Table of Documents Referred to in Draft Revised Environmental Impact Statement
for the Location and Construction of the Proposed New Denver Mint.

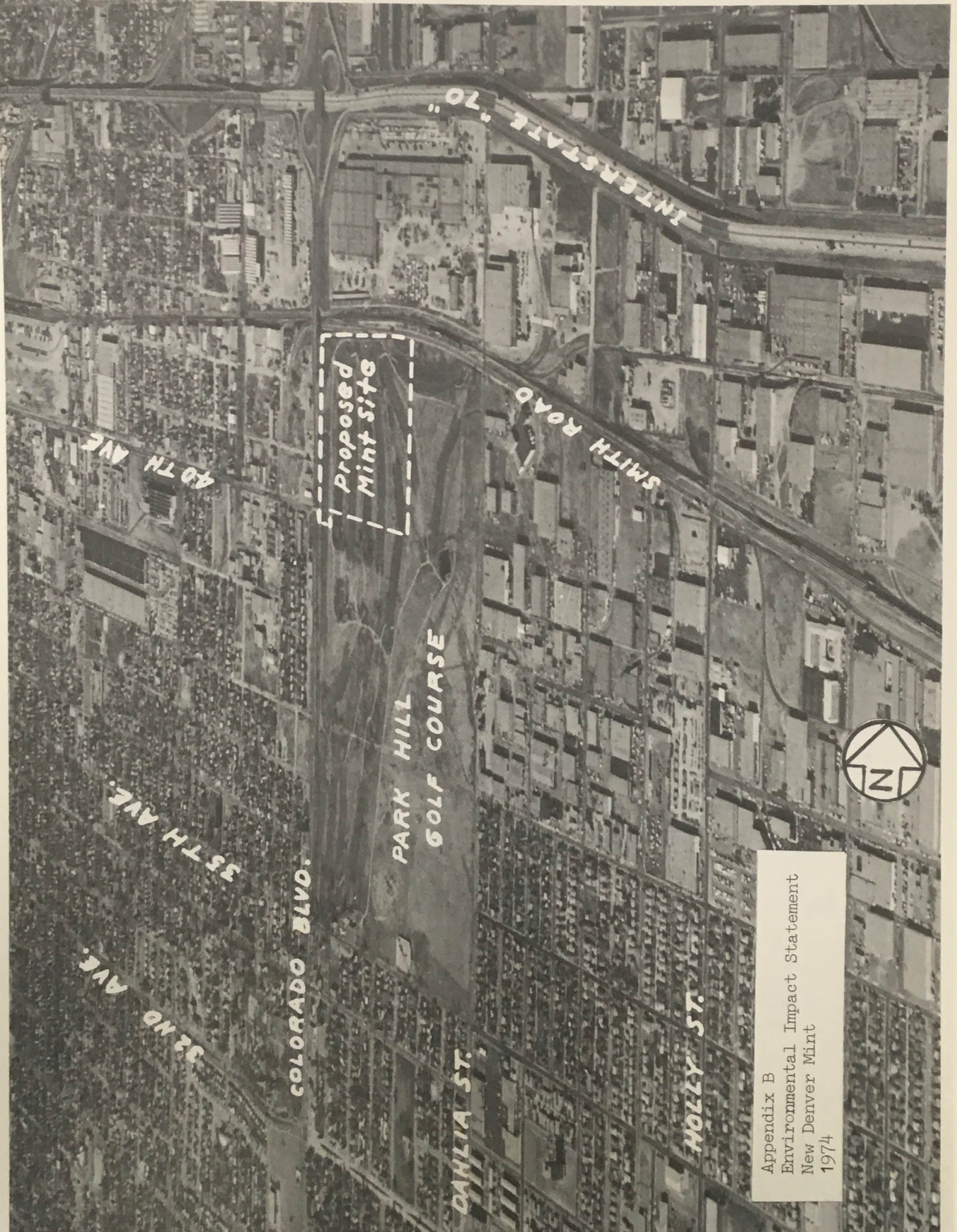
The following is a list of the documents referred to in the Statement. As stated on Page 4 of the Statement, these documents are available for consultation by any interested person at the office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

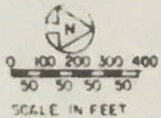
1. Letter from the Mayor of the City and County of Denver to Frank W. Rhea, dated February 12, 1974.
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
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10. Same as No. 7 above.
11. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.
12. Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.



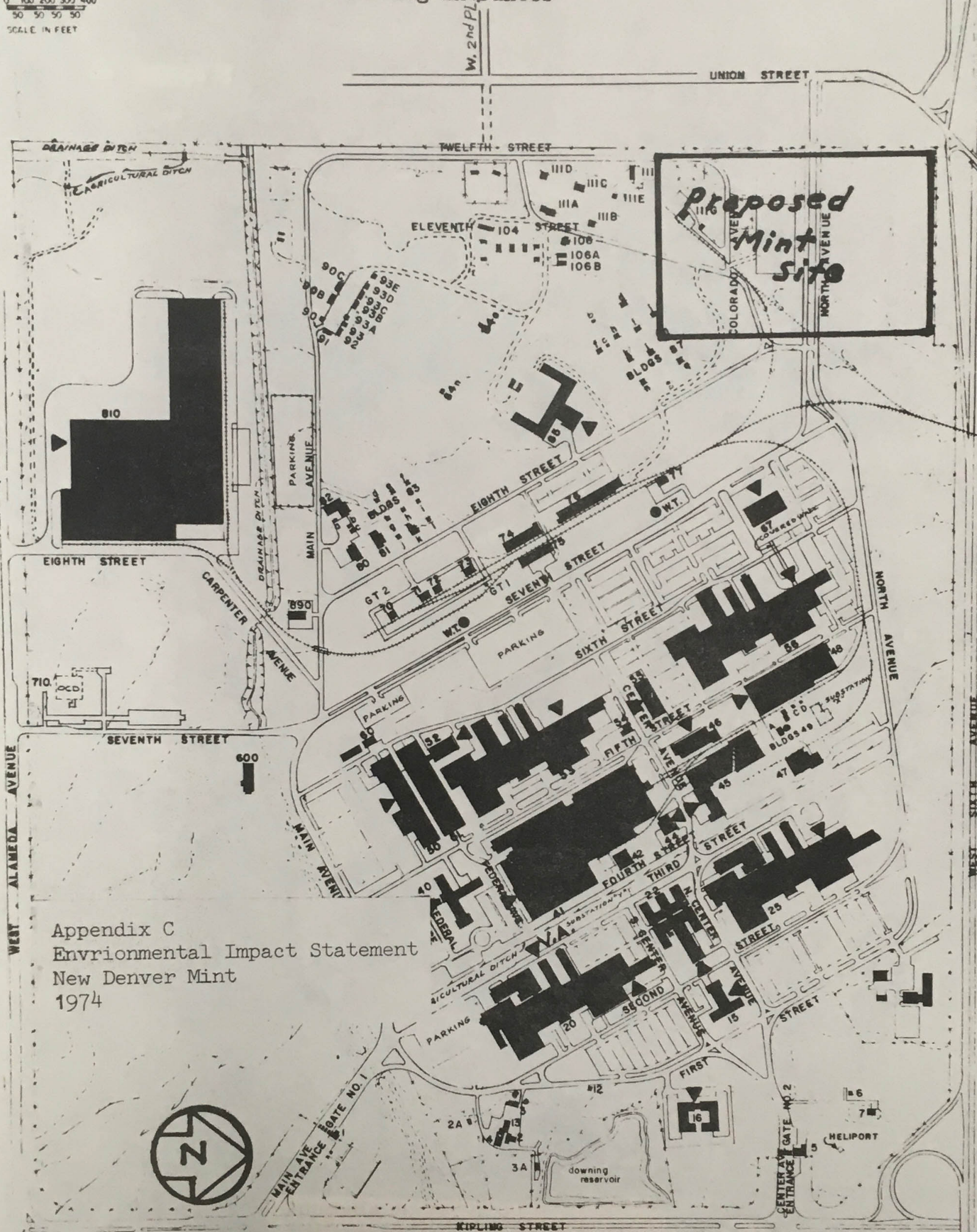
Appendix A
Environmental Impact Statement
New Denver Mint
1974



Appendix B
Environmental Impact Statement
New Denver Mint
1974



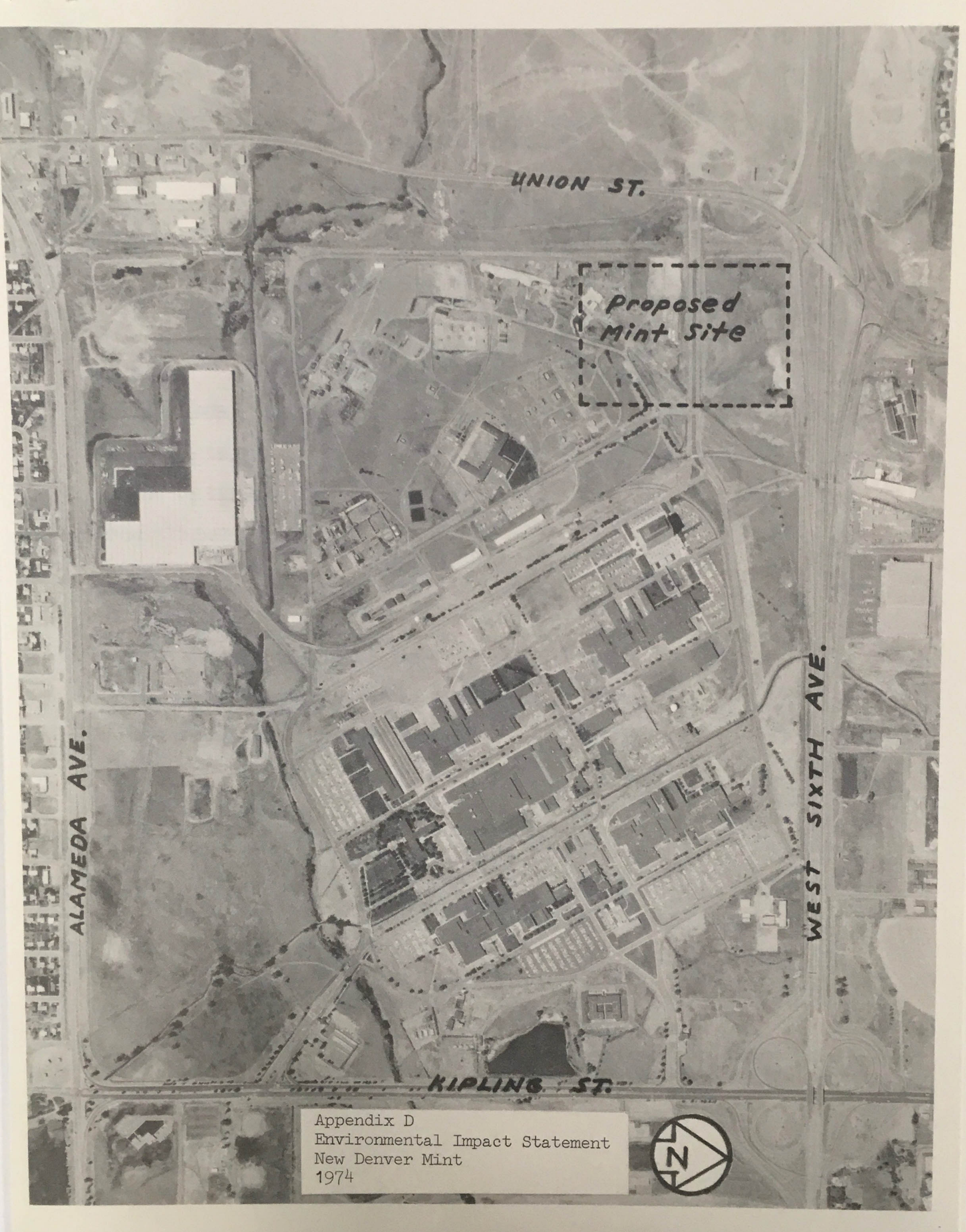
▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

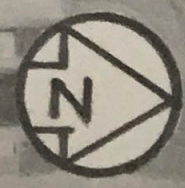
Proposed
Mint Site

ALAMEDA AVE.

WEST SIXTH AVE.

KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974



UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

<u>No. of Employees</u>			
<u>Annual Salaries</u>	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	<u>Total</u>
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary	-	\$ 10,324
Average Annual General Schedule Salary	-	12,841
Average Annual Mint Employee Salary	-	10,839

Appendix E
Environmental Impact Statement
New United States Mint
1974

NEW UNITED STATES MINT
DENVER, COLORADO

Draft

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

Draft Revised Environmental Impact Statement

Frank W. Niles
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4336

Range of Action: (X) Administrative Action () Legislative Action

Description of Action: Prepared by
Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204
The proposed facility should provide an appropriate and beneficial use of either potential site. Construction of high-bay, one-story buildings and multi-story administrative buildings, all comprising the new Denver Mint. Construction would consist of parking areas, all necessary utilities and land. The proposed building space would be about 700,000 sq. ft. The Department is considering two possible locations for the new facility. Other location until comments on the proposed action have been received and evaluated. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposal. The proposal would assure the required production of high quality coins for the United States.

February 27, 1974

Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Prepared for
U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220
The proposed facility should provide an appropriate and beneficial use of either potential site. Environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring, (2) the increase in stationary source and vehicle-generated air pollution, and (3) the various short-term impacts during construction.

Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is considering two possible sites, without favoring either location until comments on the proposed action have been received and evaluated. The two sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

5. Comments Requested From:

Environmental Protection Agency
Department of Agriculture
1. Department of the Army, Corps of Engineers
Department of Commerce
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of the Interior
Department of Transportation
2. Advisory Council on Historic Preservation
General Services Administration
Office of Economic Opportunity
3. State of Colorado Division of Commerce and Development
State of Colorado Department of Health
State of Colorado Department of Highways
State of Colorado Division of Wildlife
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
Urban Drainage and Flood Control District
City and County of Denver
Colorado Water Conservation Board
4. Board of Water Commissioners, City and County of Denver
City of Lakewood
Jefferson County
5. Rocky Mountain Center on Environment
6. Colorado Federation of Women's Clubs
Greater Park Hill Community Inc.
Park Hill Improvement Association
7. Thorne Ecological Institute

6. Draft statement made available to the Council on Environmental
Quality and the public on February 27, 1974.

Bibliography

Appendix A - Map of Park Hill Golf Course Area

Appendix B - Aerial Photograph of Park Hill Golf Course Area

Appendix C - Map of Denver Federal Center Area

Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Wage Scale of Denver Mine Employees

DRAFT REVISION
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 DENVER, COLORADO

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DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year. More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the mission of producing domestic coins ranging in denomination from 1¢ to \$1, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

a. Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

b. Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins and supplies) and warehousing.

c. Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed and constructed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the new facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (1) A site consisting of a minimum of 30 acres.
- (2) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, would be in harmony with and enhance the area where it is located, and would provide for the important tourist aspects of the facility.

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until

comments on the proposed action have been received and evaluated. The two proposed alternative sites are:

Site A - The northwest corner of the Park Hill Golf Course in the City of Denver, near the intersection of Colorado Boulevard and Smith Road. (See attached map, Appendix A, and attached aerial photograph, Appendix B.)

Site B - The northwest corner of the Denver Federal Center in the City of Lakewood, near the intersection of Union Street and the West Sixth Avenue Freeway. (See attached map, Appendix C, and attached aerial photograph, Appendix D.)

The proposed sites would supersede the previously selected site along the west bank of the South Platte River, extending from about 18th Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement dated February 2, 1973. This site has been abandoned because of the incompatibility of having the new mint on a long, narrow strip of land immediately adjacent to the mainline north-south railroad trackage through Denver, which the Burlington Northern Railroad Company plans to construct on the west bank of this reach of the South Platte River. Due to the size of the proposed mint structures and constricted width in the center portion of the site, the layout of the mint on this property would require large building complexes at the two end portions of the area, with about 1,000 feet of open space in between. This situation, coupled with the planned raised grade of the railroad tracks to avoid potential South Platte River floods, would make the frequent heavy train traffic highly apparent to the many public visitors (approximately 250,000 per year at the present mint), to the mint personnel themselves, as well as from surrounding areas. This environmental condition would be completely out of harmony with the envisaged new mint, which is being planned to serve as an important tourist attraction and to reflect the importance and dignity of the United States Government coinage operations that would be performed in the facility. The Treasury Department had no knowledge of plans to place mainline railroad trackage in such close proximity to the mint property until October 1973, long after the formal South Platte site agreement between the City of Denver and the United States Government was signed on May 24, 1973. In addition, air pollution problems, related to this site, have developed since the original Environmental Impact Statement was prepared. These air pollution problems are similar in nature and magnitude to those for the Park Hill Golf Course site as discussed in paragraph 3.2b herein.

Authority for the construction of a new mint at Denver is contained in 31 U. S. Code 261 and 291.

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Park Hill Golf Course

The proposed site consists of about 35 acres located in the northwest corner of the Park Hill Golf Course at the intersection of Colorado Boulevard and Smith Road. The area is a portion of Clayton Trust land controlled by the Mayor of Denver and the Denver City Council as trustees. The proposed site is about 4 miles northeast of the Denver Central Business District. Presently the site is occupied by the Park Hill Golf Course. In order to provide the planned space for the new mint buildings and grounds, eight golf holes would have to be relocated to the currently vacant portions of the Clayton Trust Park Hill property. If this site is selected, the City of Denver plans to rebuild the golf holes affected so that there would be no time lost in availability of the 18-hole course for area golfers. ¹

A rail line is near this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for rail service to the mint. Smith Road is lightly traveled and is crossed by similar tracks in the vicinity. The availability of the spur would be advantageous, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Road access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70. The intersection of these two main arteries is a clover-leaf, about 1,800 feet to the north of the proposed site.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage. There are no historic resources nor historic places which would be affected by the proposed project.

1 Letter from the Mayor of the City and County of Denver to Frank W. Rhea dated February 12, 1974.

A copy of each document referred to in this Statement may be consulted by any interested person at the Office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

To the north of the proposed site, across Smith Road and the railroad, is an industrial and warehousing area. The buildings are relatively new and barely visible from the proposed mint site. To the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This open recreational area would separate the mint site from the light industrial complex to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed nor relocated to make the site usable. It would, however, be necessary to construct a heating plant for the new mint at this site.

The proposed site is well drained and is not subject to flooding nor a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing and drilled pier foundations would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado Boulevard and Colfax Avenue.² Transportation would be by bus from this point to the proposed site, a distance of about 2 miles.

The climatic environment of the proposed site is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent. This site is relatively unfavorable from a meteorological and air pollution point of view. Further discussion of this matter is contained in the probable environmental impact section of this statement.

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

² A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

b. Site B - Denver Federal Center

The proposed site consists of about 35 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site, which is approximately 8 miles west of the Denver Central Business District, is in Lakewood and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide for the new mint.

A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This would be advantageous, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Highway access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Place, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing storage buildings which are to be removed. There are no historic resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8

to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation into the Federal Center grounds is now provided by busses of Denver Metro Transit, using West Alameda and Kipling Street. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned on Union Street between Alameda Avenue and Sixth Avenue. There are presently about 6,500 employees at the Center. Thus, the Mint's approximately 800 employees would be joining with an existing base for public transportation.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area.

Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Park Hill Golf Course

It is considered that construction of a new mint on the Park Hill site would be in harmony with Federal, State, and City land use plans, policies and controls for the affected area. The site in question is designated as park or open space on the land use plan of the Denver Regional Council of Governments.³ However, the latest City of Denver land use plan⁴ shows approximately three-fourths of the site as industrial space and one-fourth as park or open space. By Resolution Number 6, passed by the Council on January 28, 1974, and approved by the Mayor on January 29, 1974, the Council of the City and County of Denver urged Mrs. Mary Brooks, Director of the Bureau of the Mint, to select the Park Hill Golf Course site for the location of the new Denver Mint.⁵ The new mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with the commercial and industrial activities to the north and east. Road and rail access into the north side of the site could

3 Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

4 Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.

5 Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.

be accomplished so as to minimize, if not completely eliminate, any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust property could be accomplished before mint construction commences (projected for late 1975) so that there would be no interruption in availability of golf course facilities. There is another major park, the Denver City Park, including a municipal golf course, about two miles south of the proposed site. The proposal would not involve displacement of residences nor commercial enterprises.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. There would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site and to the north, across Sixth Avenue, are zoned E72-77, Commercial, under the current approved zoning plan of the City of Lakewood. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments, which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD", a draft comprehensive plan for the future development of Lakewood.⁶

It is believed, on balance, that locating the new mint at this proposed site would be a beneficial land use in conformance with plans, policies and controls for the affected area.

⁶ CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.

3. The Probable Impact of the Proposed Action on the Environment.

The construction of a new mint on either of the proposed sites would have some effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows:

3.1 Transportation of Materials, Employees and Visitors into and out of the Facility.

a. Introduction

These introductory remarks pertain to both proposed sites. A new mint at either location would produce additional automotive traffic loads in the specific site vicinity and in the Denver metropolitan area in general. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 11 percent reside within a 2-mile radius of the existing mint, 50 percent within a 5-mile radius, and 80 percent within a 10-mile radius. After several years of operational status of the mint, it is expected that this residence pattern would be generally applicable to the proposed new locations, with some adjustment due to housing area locations as discussed below for each site. Presently, there are about 285 private automobiles used daily by employees in getting to and from work. These automobiles travel an average one-way distance of 6 miles, for a total daily vehicle miles traveled of 3,420.

For either location the additional traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for mint employees' private automobiles would be approximately 125 cars inbound and 125 cars outbound during each shift change (presently 7 A.M., 3 P.M., and 11 P.M.), 70 cars inbound at about 8 A.M. and 70 cars outbound at about 4:30 P.M. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity and the Denver metropolitan area in general, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. The tourist traffic, averaging an estimated 200 cars and 5 busses daily, would occur in the middle portion of the day and thus would naturally avoid peak periods. Mint traffic would terminate in its own parking areas and would not add to parking congestion in the site vicinity. There would be separate parking areas for visitors and for mint employees.

b. Site A - Park Hill Golf Course

While the overall road network in the vicinity of this site is excellent, the additional traffic generated by the mint would tend to coincide with the direction of existing traffic and would add to existing congested conditions on Colorado Boulevard and on I-70. In 1971 (the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 29,800 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles.⁷ Both of these arteries are saturated during peak traffic periods. Mint employee traffic would add 900 one-way trips at the immediate site location, if 1973 usage patterns are continued. As indicated above, mint traffic would be scheduled to avoid peak periods. Tourist traffic would add an average of 410 one-way trips daily.

This site is presently served by Denver Metro Transit busses operating on Colorado Boulevard, and it is expected that this service will be expanded and bus frequency increased, in accordance with the Summary Report issued in March 1973 by the Regional Transportation District.⁸ With respect to the rail based Personalized Rapid Transit System planned by the Regional Transportation District, the closest service would be on the Colfax Avenue line at the intersection of Colfax Avenue and Colorado Boulevard.⁹ Employees and visitors would have to transfer to busses at this point to proceed the remaining approximate 2 miles to the mint.

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration occurring in the immediate site area.

On the basis of housing availability locations and experience with respect to the present Denver Mint, it is expected that after several years of mint operations at this site, the center of gravity of mint employee residences would be about 2 miles to the southwest towards the City core. On this basis, the net daily additional VMT for the Park Hill site is estimated as follows:

900 one-way trips x 6 miles (average employee travel distance to center of gravity)	=	5,400
900 x 2 miles (center of gravity to mint site)	=	1,800
		7,200
Minus VMT for current operation at the existing Denver Mint		
	=	3,420
Net additional VMT		3,780

7 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

8 A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.

9 Ibid.

It is considered that this is a maximum figure and that with increased development and use of public transportation systems the net additional VMT would be reduced appreciably for this site, as well as for the Denver Federal Center site.

c. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available to the Federal Center from Sixth Avenue, Alameda Avenue, Kipling Street and Union Street. The mint daily traffic of 900 employee one-way trips and 410 tourist one-way trips would add to existing loads on the access routes, which had daily averages as follows in 1971, according to State Highway Department counts: ¹⁰

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Union Street is currently being reconstructed to provide expansion from two to six lanes along the proposed mint portion of the Federal Center, so that existing peak-hour congestion on this route should be reduced.

The mint employee traffic generally would be counterdirectional to the mass of rush-hour movements, which are City-center oriented in the mornings and outbound oriented in the afternoons. The Regional Transportation District's plans call for service to the Federal Center by the Personalized Rapid Transit System, with a main station on Union Street between Alameda and the Sixth Avenue Freeway. Also, the total Federal Center employee population, in excess of 6,000, serves as a good base to justify early development of improved public bus systems, to the end that there might be reductions in employee use of private automobiles.

For this proposed location, it is expected, on the same bases as mentioned above for the Park Hill site, that after several years of operation the center of gravity of mint employee residences would be half-way between the site and the City core, or about 4 miles to the east of the proposed site. Similar to the discussion for Park Hill, the net daily additional vehicle miles traveled is estimated as follows:

900 one-way trips x 6 miles (average distance to center of gravity)	=	5,400
900 x 4 miles (center of gravity to mint site)	=	<u>3,600</u>
		9,000
Minus current VMT	-	<u>3,420</u>
Net additional VMT		5,580

10 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

3.2 Potential Pollution - Air, Water, Solid Wastes and Noise.

a. General

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential pollution problems associated with the construction and operation of the facility. These potential problems are similar for both of the proposed locations. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring new state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint would be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

b. Air Pollution - Stationary Source and Motor-Vehicle Generated

The new mint would generate some fumes from its metal melting and casting operations, from strip rolling and finishing and from blank annealing and cleaning. It is planned to install fume collection systems, employing hoods and ductwork, and to cleanse all fumes from the industrial operations using electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, State and Federal standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards. With this installed equipment, it is considered that air pollution effects from the industrial operations would be negligible.

The same negligible effects generally would be true for any potential stationary source air pollution from the facility heating plant. At the Denver Federal Center there is sufficient capacity available in the existing central heating plant to serve the proposed Mint. The Denver Federal Center boilers are capable of burning natural gas, No. 2 fuel oil and coal. In 1973 these boilers were tested and found in compliance with current State and Federal clean air emission standards while burning gas, fuel oil and high grade coal. However, in light of the current and long-range energy situation and air quality standards, the General Services

Administration is in the process of having a detailed engineering study made on available fuel sources in respect to environmental considerations to determine the best fuel(s) to be used at the Denver Federal Center. If clean fuels are not available in the future for operation of this heating plant, it may be necessary for the General Services Administration to install some type of precipitators or filters in the plant smokestacks. In any event, by the scheduled date of 1980 for the new Mint to be fully operational, full compliance of this facility with Federal and Colorado Clean Air Standards is planned. At Park Hill, it would be necessary to construct a heating plant for the new Mint only, which would be fired with relatively clean fuels if available. If not, precipitators would be installed in the smokestacks and the emissions would be comparable in quality and quantity to those caused if the mint load were added to the central plant of the Federal Center.

In addition to the stationary source pollutants, motor vehicle pollutants would be generated throughout the Denver metropolitan area by the net additional vehicle miles traveled of 3,780 for the Park Hill site and 5,580 miles for the Federal Center site. In each case, the additional VMT would be at maximum levels in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Analysis and evaluation of the relative significance of the additional air pollution for the two proposed sites should be done in consideration of current levels of pollution and in consideration of on-going programs to improve air quality in the Denver area. The following data on ambient air quality are from "Statistical Analysis of Air Quality Data 1970, Suspended Particulates", published by the Colorado Department of Health, Air Pollution Control Division, on March 14, 1972:

"Statistical Analysis of Ambient Air Quality Data
Pollutant: Suspended Particulates
Unit: Micrograms Per Cubic Meter
Year: 1970

(NOTE: This table, showing effects of the proposed State and carbon, has been omitted from this statement because Table II, extracted in 1 herein, shows the same effects.)
percentage reduction from 1971 emissions.)

<u>Station</u>	<u>Quarter</u>	<u>No. Samples</u>	<u>Arithmetic Mean</u>	<u>Minimum/Maximum</u>
Lakewood	1	24	80	30/211
	2	27	67	15/149
	3	24	55	21/168
	4	20	70	30/109
	Total	95	68	15/211

II - Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.

School Admin. Building	1	23	149	74/255
	2	24	100	66/181
	3	23	98	40/189
	4	20	122	43/229
	Total	90	117	40/255 "

The Lakewood station is representative of air quality conditions at the proposed Federal Center site. The School Administration Building station is representative of air quality conditions at the proposed Park Hill site. The State of Colorado's long-term standard is an annual arithmetic mean of 70 micrograms per cubic meter of suspended particulates, and a short-term standard of a 24-hour maximum of 200 micrograms per cubic meter which is not to be exceeded more than once in a 12-month period.¹¹

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan
.....

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

Table I - Compilation of control strategy effects on carbon monoxide and hydrocarbon emissions.
(Tons per year)

(NOTE: This table, showing effects of the proposed State and EPA strategies in tons per year of carbon monoxide and hydrocarbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effects in percentage reductions from 1971 emissions.)

11 Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.

Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program..	31	23.0
2. Inspection/maintenance.....	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photochemical oxidants (hydrocarbons) by May 31, 1977."

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions. As the Park Hill site is in both demonstration areas, the net additional VMT caused by mint traffic, although minor in comparative scope, would be counter to the State of Colorado and Environmental Protection Agency programs to improve air quality in the areas adjacent to this proposed site.

Although the net additional VMT caused by mint traffic for the Federal Center site probably would be greater than for Park Hill, it is considered that the net adverse impact on air quality would be less with the new mint located at the Federal Center. This is based on the following reasons. The stationary pollutant source and the concentration of the vehicle source would be a significant distance away from existing high pollution levels and pollution sources, which are concentrated in the Denver Central Business District. The worst pollution levels are centered on Denver proper and occur when atmospheric conditions are stable and winds are light. This produces downslope winds roughly parallel to the Platte River from the south-southwest during the nighttime and early morning hours, and reversals from the north-northeast during the daytime as heating from the sun takes effect. Due to this peculiar meteorology of the Denver area, during periods of highest pollution levels, pollutants from the Federal Center area generally would tend to flow back and forth parallel to the South Platte Valley

considerably to the west of the high pollutant concentrations in the downtown area, whereas pollutants from the Park Hill vicinity would tend to reinforce these high concentrations to a small degree.

c. Other Potential Pollution Problems

Chemical effluent will be produced from the blank cleaning operations and from the assay laboratory. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses. All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

Attention must be given to the handling of process cooling water used in the metal casting and strip rolling operations. Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers or ponds and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to minimize fog-producing conditions. Any fog produced would disappear within the site boundaries.

Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable soils. Solid wastes will be processed within the plant, with major quantities of scrap metal being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to approved disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control.

There will be some noise pollution, particularly during the construction period, with a potential for noise pollution after project completion, if adequate precautions are not adopted. Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative isolation of the sites. Plant operational noise from outside the proposed sites boundaries would not be apparent, as the buildings will be designed with internal and external noise level controls to meet the requirements of the Federal Occupational Safety and Health Act. There would be some minor noise due to truck traffic and railroad switching engines servicing the rear of the facility.

3.3 Energy Use and Conservation.

Energy will be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado has indicated would be available in required amounts at either location.¹² The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects would occur gradually and would be influenced considerably by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability of gasoline for private automobiles and improvements and extensions of public transportation systems.

At both locations land for the proposed project is available, and water, sewerage, roads, electric power and other public services are already in existence as needed for the project.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact and tourist considerations.

With the mint at the Park Hill Golf Course, the secondary consequences would be almost nil. As discussed in paragraph 3.1 above, it is expected that employee residences would gradually change with time from the circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of 2 miles to the northeast. The facility would not be as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists

12 Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. There possibly would be a minor shift in money spent by tourists in the Central Business District to areas closer to the new mint.

For the Federal Center location there would be somewhat more of an impact regarding these factors. In this case, the employee residence center is anticipated to move about 4 miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to 150. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint employees currently in the low-income bracket (less than \$6,825 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary of \$10,839 is generally comparable with that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the City of Denver and in Jefferson, Adams and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT: LAKEWOOD", cited earlier, contains recommendations that the City of Lakewood shall establish a policy of requiring low- and moderate-income housing in future major developments and a goal that annual housing production shall include 10 percent low- and moderate-income units. It is expected that current mint employees would relocate slowly over a considerable time period, if at all, and that most of the new employees would come from the existing Denver metropolitan area work force base, so that there would not be a sudden influx of new residents into areas in close proximity to the mint site.

With respect to schools, the additional mint residents of Lakewood would add about 150 pupils to the school system, with similar minor changes caused in school populations throughout the metropolitan area. These adjustments and additions would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's present annual payroll of \$5 million to a center about 4 miles westward of its present location. Also, a minor amount of tourists' expenditures for lunches and car service would be shifted away from downtown Denver.

4. Alternatives to the Proposed Action.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The alternative of constructing the new mint at some location other than the two sites discussed in this statement has been explored in great detail for in excess of two years.

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other coin production facilities, the Philadelphia Mint and the San Francisco Assay Office.

b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are generally available at reasonable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the Park Hill Golf Course and the Denver Federal Center have been selected for further consideration for the following reasons:

Site A - Park Hill Golf Course

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area.

Site B - Denver Federal Center

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in public ownership.

d. The site would have fair access for tourists and official visitors.

e. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

a. South Platte River from about 18th Avenue to Speer Boulevard.

This location had been selected for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver along the west bank of the South Platte River have made this site untenable for the reasons discussed previously in this statement and which are summarized here for convenience. Due to the long, narrow configuration of the area, and the restricted width at about site center between the Valley Highway and the sharp bend in the South Platte River, layout of the new mint on this property would result in one large building complex on the northern portion and another building complex on the southern portion, with about 1,000 feet of relatively low, open space in between. The frequent through and local service train traffic, operating on tracks immediately adjacent to the mint structures, would produce visual and noise pollution to such an extent that there would not be an appropriate environment for the envisaged mint structures and grounds, which are planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

b. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the City.

d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate environment for the mint.

f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

g. Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal make it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot Be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M and 3 P.M. daily. Traffic increases in the vicinity of the Park Hill site probably would create more of a problem because of existing congestion on I-70 and Colorado Boulevard.

Additional stationary source and vehicle-generated pollutants would be of about the same quantity for both locations. The additional pollutants in the Park Hill area are of more concern because of existing high air pollution levels in the vicinity and Federal/State plans to reduce vehicle miles traveled in this area.

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal, which do not appear to be of a major nature, are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce the traffic congestion and air pollution adverse impacts.

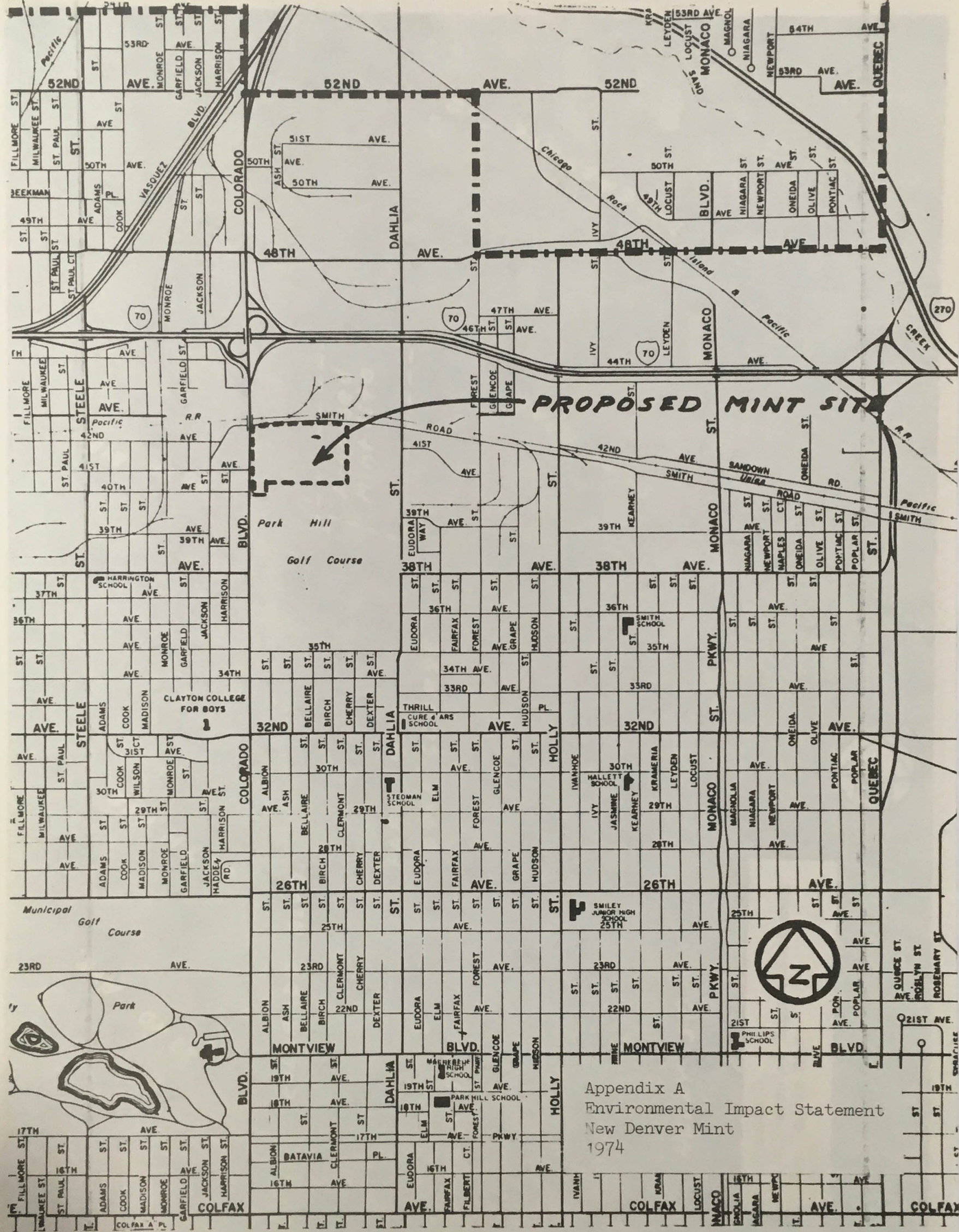
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1983, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
6. CONCEPT: LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.
7. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.
8. Same as No. 2 above.
9. Same as No. 3 above.
10. Same as No. 7 above.
11. Statistical Analysis of Air Quality Data, 1970. Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. A-5.
12. Letter, Public Service Company of Colorado to Frank W. Egan, February 12, 1974.

Table of Documents Referred to in Draft Revised Environmental Impact Statement for the Location and Construction of the Proposed New Denver Mint.

The following is a list of the documents referred to in the Statement. As stated on Page 4 of the Statement, these documents are available for consultation by any interested person at the office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

1. Letter from the Mayor of the City and County of Denver to Frank W. Rhea, dated February 12, 1974.
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
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7. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.
8. Same as No. 2 above.
9. Same as No. 2 above.
10. Same as No. 7 above.
11. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.
12. Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.



Appendix A
Environmental Impact Statement
New Denver Mint
1974



Proposed
Mint Site

PARK HILL
GOLF COURSE

INTERSTATE "70"

SMITH ROAD

COLORADO BLVD.

DAHLIA ST.

HOLLY ST.

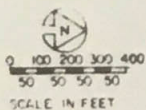
32ND AVE.

33TH AVE.

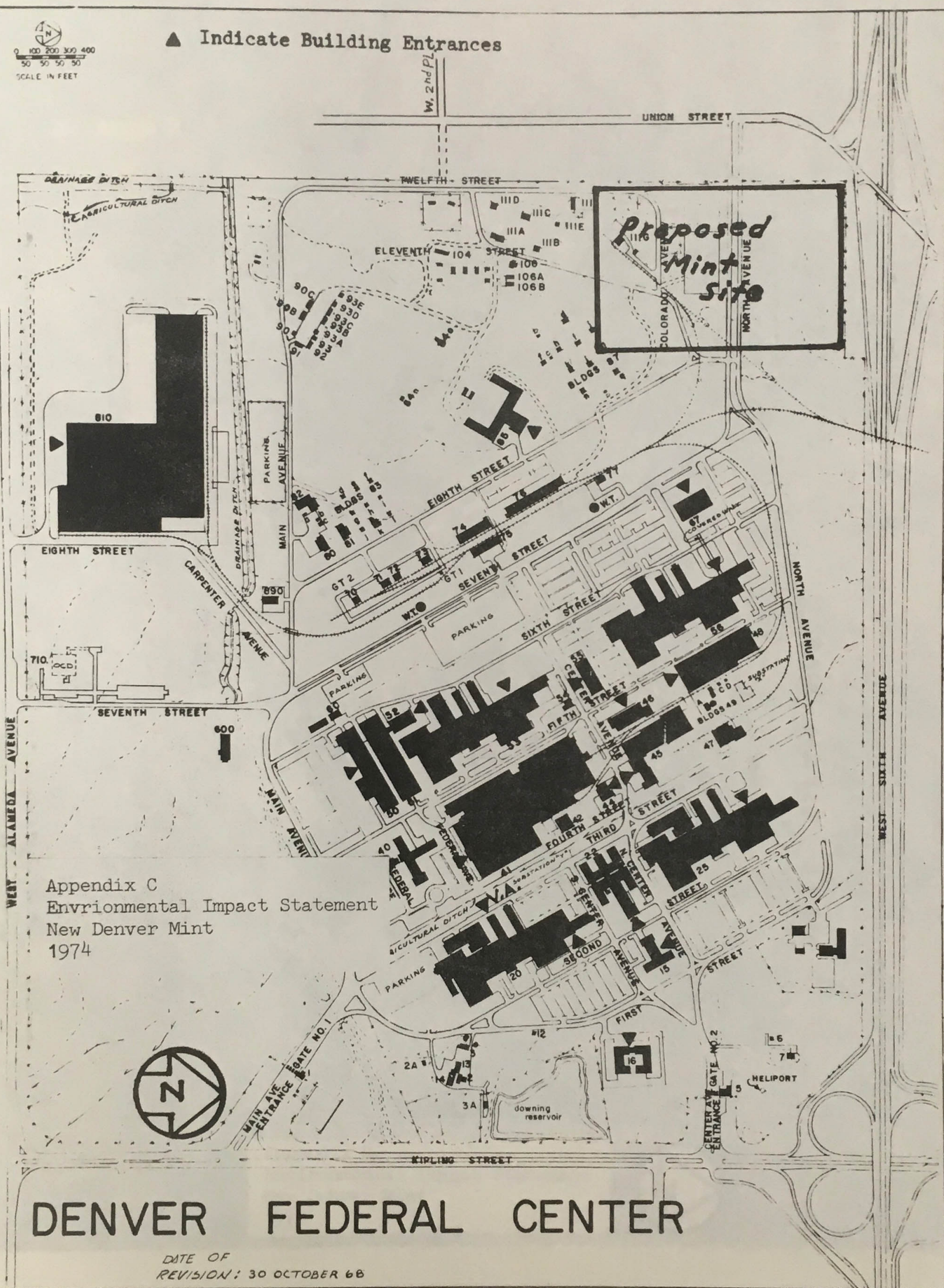
40TH AVE.



Appendix B
Environmental Impact Statement
New Denver Mint
1974



▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

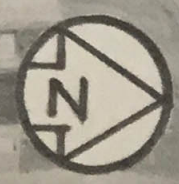
Proposed
Mint Site

ALAMEDA AVE.

WEST SIXTH AVE.

KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974



UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

<u>No. of Employees</u>			
<u>Annual Salaries</u>	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	<u>Total</u>
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	<u>42</u>	<u>42</u>	<u>84</u>
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary	-	\$ 10,324
Average Annual General Schedule Salary	-	12,841
Average Annual Mint Employee Salary	-	10,839

Appendix E
Environmental Impact Statement
New United States Mint
1974

Dinner Federal Center + Park Hill Site (DRAFT) File

Feb 27, 1974

Maeter Draft & Final Environmental Impact Statement File

orig SJC PR

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

Final Revised Environmental Impact Statement

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

May 29, 1974

Prepared for

U. S. Department of the Treasury
Main Treasury Building
Washington, D.C. 20220

NEW UNITED STATES MINT
DENVER, COLORADO

() Draft

(X) Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is considering two possible sites, without favoring either location until ~~comments on the proposed action have been received and evaluated.~~ *at Park Hill* *has been evaluated.* The two sites are (1) the northwest corner of the Clayton Trust Property in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

③ some adverse economic and social effects on the City of Denver if the new mint were located outside of the City,

5. Written Comments on the Draft Revised Statement for this proposed project have been received from the following:

Environmental Protection Agency
Department of Agriculture
Department of the Army, Corps of Engineers
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of the Interior
Department of Transportation
* Advisory Council on Historic Preservation * GSA
Office of Economic Opportunity
State of Colorado Department of Health
State of Colorado Department of Highways
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Colorado Division of Planning (State Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
City & County of Denver
Board of Water Commissioners, City and County of Denver
Denver Chamber of Commerce
City of Lakewood
Lakewood Chamber of Commerce
Jefferson County
City of Aurora
League of Women Voters of Denver
City of Brighton
Greater Park Hill Community Inc.
~~Park Hill Improvement Association~~
Rep. Patricia Schroeder
Professor John Marr, University of Colorado
~~KWAL Paints~~
Elmer Metcalf

6. Dates on which statements made available to the Council of Environmental Quality and the public:

Draft Revised Statement - February 27, 1974

Final Revised Statement - May 29, 1974

FINAL REVISED ENVIRONMENTAL IMPACT STATEMENT
TABLE OF CONTENTS
DENVER, COLORADO

*Re. do
Particularly for
summary*

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FINAL REVISED ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

7A. Basic Requirements

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year. *but the growth in coinage demand has been such that* More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. *Total* Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the mission of producing domestic coins, ~~ranging in denomination from 1¢ to \$1~~, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

(a) *Primary*
Basic Functions

Melting and casting of various metals and metal alloys, strip rolling and cleaning, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins and supplies) and warehousing.

(a) Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time. Due to the inherent uncertainties involved in projecting coinage demand, it is possible that this facility might be continued in use as an auxiliary to the new mint. Alternatively, it could be remodeled and renovated to provide for another use, such as office space, for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed and constructed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years. *An ultimate capacity of 28 billion coins per year is foreseen at this time.*

Detailed design of the new facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

(1) A site consisting of a minimum of 30 acres.

(2) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, would be in harmony with and enhance the area where it is located, and would provide for the important tourist aspects of the facility.

b. Proposed alternative sites

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until

12 Legal Authority to Construct a New Mint at Denver

The Act of August 20, 1963, Public Law 88-102 (31 U.S.C. 291 et seq.), authorizes the Secretary of the Treasury, acting through the Administrator of General Services, to design, construct, furnish and equip such buildings as may be required in connection with the operations of the Bureau of the Mint and to acquire suitable sites for such buildings. In accordance with that authority, in its fiscal year 1971 appropriations request, the Department proposed \$1.5 million for the acquisition of a site to construct a new facility in replacement of the present Denver Mint. In the Act of July 9, 1971, Public Law 92-49, the Congress appropriated the requested funds for that purpose. For fiscal year 1972, the Congress appropriated an additional \$2 million for the construction of the new facility (Act of July 13, 1972, Public Law 92-351).

As to the location of the new facility, Section 3495 of the Revised Statutes, as amended (31 U.S.C. 261), provides that "The different mints and assay offices shall be * * * the mint of the United States at Denver." The statutory language, while clearly requiring that the new facility be located in the Denver area, leaves sufficient administrative discretion in the Secretary to select a site for the new facility either within or outside the corporate limits of the City and County of Denver. As the word "at" has been ^{judicially} construed by the courts of a number of jurisdictions, it connotes "nearness" or "proximity" to a particular place. In line with the accepted judicial construction of this word, as long as the new facility is located in a reasonable proximity to the corporate limits of the City and County of Denver, the statutory requirement of a mint "at Denver" is fulfilled.

Thus, location of the new mint at either site considered in this statement would fulfill the statutory requirement.

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Clayton Trust Property

The proposed site consists of about 35 acres located in the northwest corner of the Clayton Trust Property near the intersection of Colorado Boulevard and Smith Road. The Clayton Trust Property is administered by the George W. Clayton Trust Commission, consisting of the Mayor, the President of the Council, and the Manager of Revenue of the City and County of Denver. The proposed site is about 4 miles north-east of the Denver Central Business District. Presently, the proposed mint site is occupied by a portion of the Park Hill Golf Course. In order to provide the planned space for the new mint buildings and grounds, nine golf holes would have to be relocated. If this site is selected, the Mayor of the City of Denver plans to rebuild the nine holes on the unimproved acreage in the southeast corner of the Clayton Trust Property. Assuming a site decision by July 1, 1974, the Mayor has stated that it would be possible to have the new nine holes ready by September 1, 1975. The present golf layout could be used throughout the 1975 golfing season, as new mint site construction work is planned for commencement in January 1976. It is not anticipated that there would be any time lost in availability of an 18-hole golf course at Park Hill for area golfers.

A rail line is near this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for rail service to the mint. Smith Road is lightly traveled and is crossed by similar tracks in the vicinity. The availability of the spur would be advantageous, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Road access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70. The intersection of these two main arteries is a cloverleaf, about 1,800 feet to the north of the proposed site.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage.

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- 1 Letter from the Mayor of the City and County of Denver to Frank W. Rhea dated February 12, 1974.

A copy of each document referred to in this Statement may be consulted by any interested person at the Office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

*Documents
presenting comments on the Draft Environmental
Impact Statement are also reproduced in Appendix
of this Statement.*

To the north of the proposed site, across Smith Road and the railroad, is an industrial and warehousing area. The buildings are relatively new and ~~barely visible~~ from the proposed mint site. To the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This open recreational area would separate the mint site from the light industrial complex to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed nor relocated to make the site usable. It would, however, be necessary to construct a heating plant for the new mint at this site.

The proposed site is well drained and is not subject to flooding nor a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing and drilled pier foundations would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado Boulevard and Colfax Avenue.² Transportation would be by bus from this point to the proposed site, a distance of about 2 miles.

^{natural} The climatic environment of the proposed site is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent. ~~This site is relatively unfavorable from a meteorological and air pollution point of view. Further discussion of this matter is contained in the probable environmental impact section of this statement.~~

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

² A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973, *page 34.*

b. Site B - Denver Federal Center

The proposed site consists of about 35 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site, which is approximately 8 miles west of the Denver Central Business District, is in Lakewood and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide for the new mint.

which crosses Sixth Avenue at grade,
A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This ^{facility} would be advantageous, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Highway access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Place, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing ^{near to mint} storage buildings which are to be removed. ~~There are no historic resources nor historic places which would be affected by the proposed project.~~

To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings ^{and a mint}. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8

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Denver Waste Control

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b. Site B - Denver Federal Center

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To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings, ~~and a hotel~~. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8

to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation into the Federal Center grounds is now provided by busses of Denver Metro Transit, using West Alameda and Kipling Street. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned in the vicinity of Sixth Avenue and Union Street, near the proposed mint site. There are presently about 6,500 employees at the Center. Thus, the Mint's approximately 800 employees would be joining with an existing base for public transportation. (3)

^{natural} The climatic environment of the proposed site is generally the same as the city of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area. Further discussion of this matter is contained in the probable environmental report section of this statement. ^{impact}

^{common} Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient remaining open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Clayton Trust Property

It is considered that construction of a new mint on the Clayton Trust Property site would be in harmony with Federal, State, and City land use plans, policies and controls for the affected area. The site in question is designated as park or open space on the land use plan of the Denver Regional Council of Governments. However, the latest city of Denver land use plan shows approximately three-fourths of the site as industrial space and one-fourth as park or open space. By Resolution Number 6, passed by the Council on January 28, 1974, and approved by the Mayor on January 29, 1974, the Council of the City and County of Denver urged Mrs. Mary Brooks, Director of the Bureau of ~~xxxxxx~~ the Mint, to select the Clayton Trust Property site for the location of the new Denver Mint. The new mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with the commercial and industrial activities to the north and east. Road and rail access into the north side of the site could

3 Letter, RLA to Frank W. Rhea, Apr 24, '74, appendix F, page 7-53
4 Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

(21) RTD letter

- Appendix F, page F -
(Do this for all documents
which are in App F)

4 Denver 1985, A Comprehensive Plan for Community Excellence,
Denver Planning Office, January 1971.

5 Resolution No. 6, Series of 1974. Introduced by the entire
Council. A resolution urging Mint Director Mary Brooks to keep
the Mint within the City and County of Denver.

The proposal would not involve displacement of residences nor commercial enterprises. Location of the new mint on this site would serve as a positive factor in providing for stability and improvement of the surrounding neighborhood, and probably would enhance residential property values in the vicinity.

The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property, or, in the vicinity of, the proposed site would be affected by the project. The State Historical Society of Colorado reviewed the Draft Environmental Statement and concluded that no historic sites nor archaeological resources would be affected at either proposed location for the new mint. The proposed undertaking should contribute to the preservation and enhancement of surrounding areas, buildings, structures and objects of historical, archaeological, architectural or cultural significance.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, state and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. There would be no displacement of facilities nor commercial enterprises.

The street to the west of the proposed site and to the north, streets 17th Avenue, are zoned U-1-U-2. Commercial, under the current approved zoning plan of the City of Lakewood. The existing commercial

be accomplished so as to ~~minimize, if not completely eliminate~~^{avoid}, any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust Property could be accomplished before mint construction commences (projected for early 1976) so that there would be no interruption in availability of golf course facilities. There is a major park, the Denver City Park, including a municipal golf course, about two miles south of the proposed site. The proposal would not involve displacement of residences nor commercial enterprises. Location of the new mint on this site ~~should~~^{could} serve as a positive factor in providing for stability and improvement of the surrounding neighborhood, and probably would enhance residential property values in the vicinity.

where The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property, ~~on, or in the vicinity of~~^{in the area, nor is there any in the vicinity}, the proposed site would be affected by the project. The State Historical Society of Colorado reviewed the Draft Environmental Statement and concluded that no historic sites nor archaeological resources would be affected at either proposed location for the new mint. ~~7&8~~ The proposed undertaking should contribute to the preservation and enhancement of surrounding areas, buildings, structures and objects of historical, archaeological, architectural or cultural significance.

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Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, ~~are~~^{would be} compatible with the other Federal structures and activities presently located at the Federal Center and ~~are~~^{would be} consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. There would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site and to the north, across Sixth Avenue, are zoned E72-77, Commercial, under the current approved zoning plan of the City of Lakewood. The existing commercial and private developments, and the planned Union Square development to the west, would provide an appropriate and compatible setting for the new mint. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

- 6 State Historical Society of Colorado Ltr. dated April 3, 1974 to Frank W. Rhea
7 State Historical Society of Colorado Ltr. dated April 18, 1974 to Frank W. Rhea

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments, ^{(X) 9} which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD," a draft comprehensive plan for the future development of Lakewood. /8

which The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property ~~on, or in the vicinity of, the proposed site~~ ^{is on this site. nor in the vicinity} would be affected by the project. The State Historical Society of Colorado reviewed the Draft Environmental Statement and concluded that no historic sites nor archaeological resources would be affected at either proposed location for the new mint. ⁽⁹⁾ The proposed undertaking ^{would} will not result in the transfer, sale, demolition, or substantial alteration of any potential National Historic Register property at the Federal Center.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

⁽⁸⁾ CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration. Not adopted as of ~~this date~~, *of this statement.*

⁹ (X) - same as previous data from DRCOG
11 (X) - same in brief for State Historical Society (B)

3. The Probable Impact of the Proposed Action on the Environment.

The construction of a new mint on either of the proposed sites would have some effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows:

3.1 Transportation of Materials, Employees and Visitors Into and Out of the Facility.

These introductory remarks pertain to both proposed sites. A new mint at either location would produce ~~additional automotive traffic loads in the specific site vicinity and~~ ^{some shift in traffic pattern} in the Denver metropolitan area ~~and in general~~. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 10 percent reside within a 2-mile radius of the existing mint, 41 percent within a 5-mile radius, and 82 percent within a 10-mile radius, in a generally circular pattern, ~~around the present mint~~. After several years of operational status of the ^{new} mint, it is expected that this residence pattern would be generally applicable to the proposed new locations. Presently, ~~there are~~ ^{are} about 285 private automobiles used daily by employees in getting to and from work. These automobiles carry approximately 360 persons, ~~to and from work~~. Of the remaining 101 employees, nearly all use public transportation, with one or two riding bicycles, and about five persons walking during favorable weather. The number of walkers and bicycle riders probably would increase slightly at the Clayton Trust site, but the effect is considered insignificant. [These automobiles travel an average one-way distance of about 7 miles, for a total daily vehicle miles traveled of 3,990.]

a small overall increase in traffic in the area.

For either location the ~~additional~~ traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load ~~for mint employees' private automobiles would be approximately 135 cars inbound and 135 cars outbound during each shift change (presently 7 A.M., 3 P.M., and 11 P.M.), 80 cars inbound at about 8 A.M. and 80 cars outbound at about 4:30 P.M.~~ ^{the projected 800} ~~The above-listed total estimate of daily traffic is valid, but the traffic at the hours mentioned are summaries of varied conditions. For operational reasons, there are many different employee shifts at the mint which serve actually to spread the total traffic flow throughout the day. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity, and the Denver metropolitan area in general, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid~~

if it were desirable with

rush-hour traffic. The tourist traffic, averaging an estimated 140 cars and 5 busses daily, would occur in the middle portion of the day and thus would naturally avoid peak periods. Mint traffic would terminate in its own parking areas and would not add to parking congestion in the site vicinity. There would be separate parking areas for visitors and for mint employees. *At the present time there are no parking facilities for public visitors.*

Transportation patterns are not new. Public traffic are considered service traffic and add an average of 100 cars per day daily. As indicated previously, all of this other traffic would be planned and scheduled to avoid peak periods to the greatest degree practicable.

This site is presently served by existing public transportation, which service is to be expanded and improved. The following significant comments are quoted from a letter from the Regional Transportation District regarding transit applications for the proposed site area.

"The short-term public transportation plan, the Early Action Program, involves improvements to the service for the District. The Park Hill site is currently served by existing bus service, Route 15, which serves the Park Hill site directly. In a scheduled North-South service on Denver's downtown interconnecting with scheduled East-West routes 14, 28, 40, 16, 12, and 6 within a distance of about seven miles. These routes service Denver's Central Business District and points east and west. Additionally, scheduled service between Denver and the Hotel Center may include a stop for the Park Hill site on the existing route. Under the Early Action Program, the frequency on each of the local routes will be increased. The frequency for Route 15 will be increased to one bus every fifteen minutes. The increased frequency on the interconnecting bus routes as well as the Park Hill site will be readily available by transit for employees and visitors.

The long-term public transportation plan will be for the year 2000 or later. It is not until 1975. Because of the flexibility of the system and the expansion, the service can be changed under the Early Action Program. The long-term transit plan will be developed by the Regional Transportation District and will be subject to the approval of the Board of Directors. The long-term transit plan will be developed by the Regional Transportation District and will be subject to the approval of the Board of Directors.

The long-term public transportation plan will be for the year 2000 or later. It is not until 1975. Because of the flexibility of the system and the expansion, the service can be changed under the Early Action Program. The long-term transit plan will be developed by the Regional Transportation District and will be subject to the approval of the Board of Directors. The long-term transit plan will be developed by the Regional Transportation District and will be subject to the approval of the Board of Directors.

b. Site A - Clayton Trust Property

While the overall road network in the vicinity of this site is excellent, congested conditions and traffic delays occur presently on Colorado Boulevard and on I-70 during peak periods. In 1971 (the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 29,800 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles. ⁹ Mint employee traffic would add 970 one-way trips at the immediate site location, if 1973 transportation patterns are continued. Tourist traffic and commercial service traffic would add an average of 330 one-way trips daily. As indicated previously, all of this mint traffic would be planned and scheduled to avoid peak periods to the greatest degree practicable.

This site is presently served by existing public transportation, which service is to be expanded and improved. The following significant comments are quoted from a letter from the Regional Transportation District regarding transit implications for the proposed mint sites. ¹⁰

Block All Quotes

"The short-term public transportation plan, the Early Action Program, involves improvements to bus service for the District. The Park Hill site is currently served by existing bus service. Route 15, which serves the Park Hill site directly, is a scheduled North-South service on Colorado Boulevard interconnecting with scheduled East-West routes - 64, 28, 40, 14, 13, and 6 within a distance of about three miles. These routes service Denver's Central Business District and points east and northwest. Additionally, regional service between Boulder and the C.U. Medical Center may include a stop for the Park Hill site on its existing route. Under the Early Action Program, bus frequencies on each of the local routes will be increased. Bus frequencies for Route 15 will be improved to one bus every fifteen minutes. With increased frequencies on the interconnecting bus routes, as well, the Park Hill site will be readily accessible by transit for employees and tourists.

.....
.....
" The timing for the short-term transportation plan calls for the implementation of improved bus service in 1975. Because of the flexibility of bus routes and bus operations, bus service may be changed under the Early Action Program to accommodate the transit needs of either Mint location. Future improvements beyond the Early Action Program to bus operations will be accomplished in accordance with the Transit Development Plan, a five-year management and improvement plan.

" The long-term public transportation plan involves the implementation of a personalized system of rapid transit on fixed guideways with a variety of levels and types of bus service to support the rapid transit system. This Personal Rapid Transit (PRT) system includes approximately 58 stations and 100 miles of guideway throughout the Regional Transportation District.

⁹ Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

¹⁰ Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974

only about three dots required to show gaps in quotes

With regard to PRT service, the Park Hill site will not be directly served. The closest PRT station location to the Park Hill site will be in the vicinity of East Colfax and Colorado Boulevard, a distance of approximately 2.5 miles. The transit link between the Park Hill site and the station will be accomplished by local bus service circulating within this area. The level of bus service and frequencies in this general Northeast Denver area has not yet been determined but a high frequency of service may be anticipated for North Colorado Boulevard because of the need to serve the adjacent residential neighborhoods and type of activities located on this arterial: Phipps Auditorium, Museum of Natural History, City Park, school, City Park Golf Course, Park Hill Golf Course, and the industrial uses and employment locations in the I-70/Colorado Boulevard general area. The Park Hill site will be accessible from all parts of the region by rapid transit via a transfer to local busses circulating in the neighborhood.

.....
.....

There are no negative environmental comments relating to transit regarding either site for the proposed mint location."

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration occurring in the immediate site area.

On the basis of existing housing availability and the relatively central metropolitan area location of this site, it is expected that after several years of mint operations (by about 1985), mint employee residences would be centered around the mint in the same general patterns and distances as for the present mint. For comparison purposes, net additional VMT calculated below are based on 1973 transportation modes usage. Due to improved public transportation systems as detailed above by the Regional Transportation District, plus the State of Colorado Transportation Control Plan to reduce major automobile-caused pollutants, it is considered that the VMT figure below is a maximum. Further, for this proposed site, it is expected that there will not be any net additional VMT due to tourist and commercial service traffic because of the relatively central metropolitan area location. Per all of the above, the net daily additional VMT is estimated as follows:

970
900 one-way trips x 7 miles ¹⁴ = 6,790
Minus VMT for present Denver Mint = 3,990
Net additional VMT 2,800

-
- 11 Letter, Denver Regional Council of Governments to Frank W. Rhea, April 24, 1973. ^{Results of} ~~contains~~ a Joint Regional Planning Program origin and destination study of 1971 indicates average work length trip for the Denver region is 7 miles.

- 14 Results of the 1971 Joint Regional Planning Program origin and destination study suggest the average work trip length for the Denver region was about seven miles. Letter, Denver Regional Council of Governments to Frank W. Rhea, April 24, 1973. Appendix F, page F. —

In addition to road traffic, there would be some impact with respect to delivery and shipment of materials by rail. At this site it is proposed to connect to the Union Pacific rail lines to the north by means of a spur track crossing Smith Road at grade, approximately 1,200 feet east of Colorado Boulevard. Most of the cargo would be inbound coinage metal in either raw or coiled strip form and outbound coins or metal scrap. Planned production capacities for 1980 would require about 16 rail cars per week for these shipments. It may be necessary to provide heat and air conditioning using coal as the fuel source, depending upon the availability of natural gas or fuel oil in 1980 and the years beyond. Another ^{four} rail cars per week would be needed to deliver the required amounts of coal. These figures would be about tripled when the new mint ^{is} developed to its ultimate programmed capacity of 28 billion coins per year. The switching rail service would be at an average frequency of three times per week and would be performed during ^{three} daylight hours when traffic on Smith Road is at a minimum. Switch trains would take three to four minutes to cross ^{the street} Smith Road. This rail delivery is not considered to be a major problem due to the infrequent service, the similar grade rail crossings of Smith Road in the vicinity, and the relatively light and slow-moving nature of the traffic on Smith Road.

c. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available into the Federal Center from Alameda Avenue, Kipling Street and Union Street. Congested conditions and traffic delays occur at present during peak periods on the road network around the Federal Center, particularly at the Union/Simms- Sixth Avenue interchange. Union Street is being reconstructed currently to provide expansion from two to six lanes, plus left turn lanes, from Alameda Avenue to Sixth Avenue. Preliminary engineering is underway relative to widening Simms Street to six lanes from Sixth Avenue to Colfax Avenue. Other minor improvements, including installation of traffic signal lights, are being accomplished now to improve traffic flow through the Union/Simms - Sixth Avenue interchange. During the rush-hour, congestion and traffic delays occur almost daily on Sixth Avenue from Wadsworth Boulevard east, but mint traffic would not add to, nor be affected by this problem, due to the counterdirectional situation with respect to the mint traffic. Average daily traffic on the arteries around the Federal Center, per Colorado State Highway Department 1971 counts, was: ¹²

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Mint employee traffic would add 970 one-way trips in the immediate site vicinity, again based on 1973 transportation patterns. It is expected that tourist traffic to this proposed site would be somewhat less than that for the existing mint, or the Clayton Trust Property site, due to the distance from other tourist attractions and the Denver Central Business District. Tourist traffic is estimated at 100 private vehicles, plus 5 busses daily. This, plus commercial service traffic, would add an average of about 250 one-way daily trips. Also, ^{it is estimated that} this traffic would travel a net additional 8 miles, the distance from the ^{the tourist center of Denver} present Denver Mint to the proposed site. All mint traffic would be planned and scheduled in coordination with other Federal Center traffic, and to avoid peak periods to the greatest degree practicable.

The Federal Center has existing public transportation service which is planned for expansion and improvement. The following ^{are} quoted from the Regional Transportation District comments regarding transit implications for the proposed mint sites. ¹³

"The Federal Center Mint site at 6th and Union is not currently served directly on a regularly scheduled basis by existing transit operations. Routes 16 and 59 serve the Federal Center directly but only for

12 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

13 Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974. *Appendix F, page F-51-3*

commuter service in the morning and evening. Route 16 is a North-South service on Kipling Street. Route 59 connects the Federal Center with Denver's Central Business District. Route 75 operates regularly between the West Lakewood area and Denver's Central Business District, but the west end of the line is Alameda and Garrison, approximately 1.5 miles southeast measured on a straight line from the Federal Center site.

"Under the Early Action Program, Route 16 will be converted into a regularly scheduled North-South service on Kipling with thirty minute bus frequencies. As a scheduled service, Route 16 will interconnect with another East-West service, Route 84, which will operate between Golden and Denver's Central Business District also on a thirty minute frequency. Route 59 will be improved by the addition of two more bus trips in the morning and evening but it will remain a commuter service. Route 75 will be extended to the west under the Early Action Program to Alameda and Ohio resulting in a Federal Center bus stop at Alameda and Union Street. As a result of the Early Action Program, the transit accessibility of the Federal Center Mint site for employees and tourists will be improved. Route extensions and modification of bus service to serve the Federal Center Mint site are possible under the Early Action Bus Program.

"The Federal Center site will be served directly by the PRT. A station location is planned for the Federal Center in the vicinity of 6th Avenue and Union Street. Thus the Federal Center site will be directly accessible from all parts of the District via rapid transit.

"There are no negative environmental comments relating to transit regarding either site for the proposed mint location."

On the same general bases as listed for the Clayton Trust Property site, the mint-generated traffic would effect a net additional in VMT in the Denver area. Due to housing availability locations, for this site an average work length trip of about 9 miles is probably more appropriate, rather than the 7-mile figure from the 1971 Joint Regional Planning Program study. The VMT figure below is considered to be a maximum, due to improved public transportation systems and automobile-caused pollutants reduction programs underway and planned. Net additional VMT ~~is~~^{are} estimated as follows:

970 employee one-way trips x 9 miles	= 8,730
250 tourists and commercial one-way trips x 8 miles	= <u>2,000</u>
	10,730
Minus VMT for present Denver Mint	<u>3,990</u>
Net additional VMT	6,740

For this site also, there would be some impact with respect to rail service. The existing rail spur enters the Federal Center from the north and crosses the Sixth Avenue Freeway at grade. This spur is in active use for shipments to and from the Federal Center involving about 30 rail cars per week. Present switching service is being accomplished at a frequency of three times per week at some time between the hours of 11:00 A.M. and 3:00 P.M. Switch trains take about four minutes to cross Sixth Avenue. The additional rail cars for the mint (20 cars per week in 1980 and about 50 cars per week ultimately) would be added to the existing switch trains, with no increase in frequency required. This rail service to the Federal Center creates somewhat of a safety problem due to the grade crossing and the intensity and relatively high-speed nature of the automotive traffic on Sixth Avenue. However, the existing rail service is necessary for efficient accomplishment of Federal Supply Activities performed from the Federal Center, and there are no plans for discontinuance of this rail traffic.

But the requirements of the new mint would not add appreciably to the problem

3.2 Potential Pollution - Air, Water, Solid Wastes and Noise.

a. General

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential pollution problems associated with the construction and operation of the facility. These potential problems are similar for both of the proposed locations. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring new state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint would be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

b. Air Pollution - Stationary Source and Motor-Vehicle Generated

The new mint would generate some fumes from its metal melting and casting operations, from strip rolling and finishing and from blank annealing and cleaning. It is planned to install fume collection systems, employing hoods and ductwork, and to cleanse all fumes from the industrial operations using electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, State and Federal standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards. With this installed equipment, it is considered that air pollution effects from the industrial operations would be negligible.

The same negligible effects generally would be true for any potential stationary source air pollution from the facility heating plant. At the Denver Federal Center there is sufficient capacity available in the existing central steam heating plant to serve the proposed mint. The primary source of fuel for the heating plant, which has three boilers, is natural gas, with No. 2 fuel oil being used as the main standby fuel. Two boilers have been converted so that they are capable of burning coal, but the third boiler cannot be converted to coal use. With two boilers in operation, there would be sufficient capacity for existing Federal

Center loads, plus the new mint load, leaving one boiler in reserve. While burning natural gas or fuel oil, the heating plant has been tested by the Air Pollution Control Division of the Colorado Department of Health and found to be in compliance with Federal and State emission standards and clean air standards. ¹⁴ While burning coal the plant was not in full compliance with Federal and State standards. The General Services Administration has this problem under engineering study and design and has stated that necessary corrective measures will be installed so that the plant meets all required emission and air standards far in advance of the new mint planned operational date of 1980. ¹⁵ At the Clayton Trust Property site, it would be necessary to construct a heating plant for the new mint, which would be fired with clean fuels if they are available. If it were necessary to use coal as the fuel, on either a prime or standby basis, precipitators and other necessary control measures would be installed so that the plant would be in compliance with all Federal ¹⁶ or State standards relative to emissions and clean air. Thus, at both sites the heating of the new mint would comply with clean air standards and the net quantity and quality of any emissions would be the same for the two proposed sites.

With respect to the impact of any stationary source pollutants as discussed in the preceding two paragraphs, the following ~~quote~~ ^{is considered to be significant.} ¹⁷ *from the Colorado Department of Health in connection to the significant contribution of pollutants in consideration to*

"The air quality data supplied in the Impact Statement presented, for 1970, an annual geometric mean for suspended particulate matter of 60.3 ug/m³ (micrograms per cubic meter) for the Lakewood site (see Attachment A). The station is approximately one mile east of the Denver Federal Center proposed mint site. However, the sentence on page 14 of the Statement, "The School Administration Building is representative of air quality conditions at the proposed Park Hill Site" is not correct. A much closer station is the Hull Photo site at 5105 East 38th Avenue. This station is approximately one mile from the proposed Park Hill Mint site. The annual geometric mean, for 1970, of suspended particulate matter from the Hull Photo station was 79.6 ug/m³. If the 1972 recorded and 1973 projected levels of suspended particulate matter are considered (see Attachment B), there is not much difference between the two sites; therefore we feel both sites are about comparable considering only this one pollutant.

¹⁴ Letter, General Services Administration to Frank W. Rhea, April 24, 1974.

¹⁵ Ibid.

¹⁶ *see next pg.*

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"ATTACHMENT B

SUMMARY OF SUSPENDED
PARTICULATE DATA

	Annual	Geometric	Mean (ug/m ³)	
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Lakewood	60.3	71.0	71.0	72.0*
Hull Photo	79.6	84.0	74.0	78.0*

* projected "

In accordance with the above discussions and statements from the Colorado Department of Health, it is considered that the stationary source air pollution problems would be minimal and would be equal for both proposed sites. *substantially*

16 Letter, Colorado Department of Health to Frank W. Rhea,
April 18, 1974. *Appendix F, page F-37, 41*

In addition to the stationary source pollutants, motor vehicle pollutants would be generated throughout the Denver metropolitan area by the net additional vehicle miles traveled of 2,800 for the Clayton Trust Property site and 6,740 for the Federal Center site. In each case, the additional VMT would be concentrated in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan
.....

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

Table I - Compilation of control strategy effects on
carbon monoxide and hydrocarbon emissions.
(Tons per year)

[NOTE: This table, showing effects of the proposed State and EPA strategies in tons per year of carbon monoxide and hydrocarbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effects in percentage reductions from 1971 emissions.]

"Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program.....	31	23.0
2. Inspection/maintenance	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photchemical oxidants (hydrocarbons) by May 31, 1977.".....

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions. ~~As the Clayton Trust Property is in both demonstration areas, the net additional VMT caused by mint traffic, although minor in comparative scope, would be counter to the State of Colorado and Environmental Protection Agency programs to improve air quality in the areas adjacent to this proposed site.~~

There ^{are} is very little data available regarding motor vehicle-caused air pollutants in the Denver Metropolitan Region. What data is ^{exist} available indicates that the 8-hour concentrations of carbon monoxide during April, May and June of 1973 were almost the same for the two sites. ^{7D} Also, August 1973 measurements of ozone (hydrocarbons) indicated that the two sites were about the same, with both exceeding the ^{natural} standard of .08 parts per million on numerous occasions. ^{7B} With respect to

17 Code of Federal Regulations, Title 40, Part 52, Subpart G, Approval and Promulgation of Implementation Plans for the Colorado Transportation Control Plan issued by the Environmental Protection Agency. ~~and 10/15/73~~

18 Ibid.

Elton
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- We need a copy of Subpart G from our files
sample Series in 1972
4/15
will get copy in mail to us

this matter of automobile-caused pollutants, the following is quoted from the Colorado Department of Health comments on the Draft Revised Environmental Statement for this proposed project: 19

"However, the major automobile-caused pollutants (i.e., carbon monoxide and photochemical oxidants) presently exceed Federal ambient air quality standards on numerous occasions over large portions of the Denver area. With limited air quality data for these pollutants at the two proposed mint sites, pollutant problems can be reduced by locating the mint where vehicle traffic can be minimized.

"The Impact Statement devotes several pages to the volume and impact of the induced vehicle miles traveled (VMT) of either site. Based on projections of 1973 vehicle usage at the existing Denver Mint, the Park Hill site should generate 1800 VMT less daily net average than the Denver Federal Center site. On the other hand, the average daily traffic (ADT) counts of the roadways adjacent to both sites indicate 7600 less vehicles at the Denver Federal Center site.

"The Department has great concern for the Park Hill area, because it falls within the boundary established by both the Department of Health and the Environmental Protection Agency to demonstrate the adequacy of transportation control strategies to attain and maintain the National Ambient Air Quality Standard for hydrocarbons by mid-1977. To reach that standard at the Park Hill site, there must be a reduction in vehicle miles traveled (VMT) in the described area (see Attachment C.) No new source of generated VMT could be tolerated within the area without a corresponding reduction of VMT from another source, or unless motor vehicle emission control technology is improved beyond that presently considered possible."

The Environmental Protection Agency has expressed somewhat different views regarding air quality impacts for the proposed two sites. The following is quoted from ~~the Environmental Protection Agency~~ comments on the Draft Statement: 20
of the Agency

"An exhaustive analysis of the ultimate air quality impacts occurring from either site would involve complex modeling and estimates of decisions about housing relocation and transportation use that may or may not occur. EPA feels that at this point, the relative merits of one site versus another from an air quality standpoint are unclear. There are further complications involved in determining where the VMT reductions should occur that make it difficult to single out one or another site.

"If carbon monoxide is the air pollution parameter of concern, then reducing VMT in the downtown area, even with some increase in

- 21 Letter, Colorado Department of Health to Frank W. Rhea, April 18, 1974 37
22 Letter, Environmental Protection Agency to Frank W. Rhea, May 6, 1974. F-10, 11, 12 38

the outlying urban areas, could result in a decrease in the maximum observed concentrations. This would be a beneficial transportation technique for meeting air quality standards.

"However, recent evidence indicates that control of oxidants may be more critical for the Denver area. Recent sampling data suggests that oxidants may be dispersed relatively uniformly over the Denver metropolitan area. If this is the case, a control of overall VMT related emissions becomes more important than spatial distribution of these emissions."

.....
.....
" The statement on page 15 that certain reductions of emissions are required in the 'demonstration areas' is not strictly correct; the reductions are required throughout the Denver Air Quality Control Region (AQCR).

"The demonstration area was only utilized as a tool to determine amounts of reduction in emissions necessary throughout the AQCR. As such it has no legal standing. Both Mint sites are inside the AQCR and are subject to exactly the same air quality standards."

Check station with Air Force over paragraph

There is one major source of VMT that is being removed from the vicinity of the Clayton Trust Property site, i.e., the Air Force Accounting and Finance Center, which is planned for relocation to a site on Lowry Air Force Base. This Accounting and Finance Center has approximately 3,200 employees and in December 1973 generated 5,152 private automobile daily one-way trips to and from the present location at 3800 York Street, Denver. *the VMT involved in this move must be great, but that is not the point* In any event, the net additional VMT caused by the new mint (2,800 for Clayton Trust and 6,740 for the Federal Center) would be very minor in comparison to the projected 14,700,000 vehicle miles of travel on an average day in 1977 in a 625 square mile study area of the Denver region. *not have a significant effect on overall VMT in the Denver area* It is considered that the net additional VMT caused by the new mint would have about the same effect at either site, *and that the solution of air quality problems in the Denver Air Quality Control Region are dependent upon changes in uses of transportation modes and improved automotive emission control technology, not upon the mint location.*

c. Other Potential Pollution Problems

Chemical effluent will be produced from the blank cleaning operations and from the assay laboratory. Oil will be collected from the rolling mills and from the blanking and coining presses. All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Expected discharge to sanitary sewers would be 300 gallons per minute average, with peak short-term rates as high as 600 gallons per minute. Adequate sewer capacity is available near both sites to handle this additional discharge. These discharges will be treated within the mint, as discussed above, so that there are no pollutant concentrations which might be harmful to the biological treatment processes in the publicly-operated sewage treatment plants. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

Attention must be given to the handling of process cooling water used in the metal casting and strip rolling operations. Process cooling water will be recirculated within the plant in closed systems. This water will be processed through closed loop cooling towers and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to reduce fog-producing conditions to almost zero. Cooling towers will be designed and located so that any such fog would dissipate within the site boundaries and ~~such that~~ there would be no adverse impact with respect to automotive traffic safety.

Produced during construction
Spent mercury
Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable soils. Solid wastes will be processed within the plant, with major quantities of coinage scrap metal being reused. Most other solid wastes (paper products, lumber, scrap metal) will be collected and sold to private firms for salvaging and recycling. Nonrecyclable solid wastes would amount to about 500 cubic yards per month. This would be placed in bins and removed by trash and waste disposal contractors to approved disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control. Emphasis would be applied to controlling dust and water erosion.

There would be some noise pollution, particularly during the construction period, with a potential for noise pollution after

project completion, if adequate precautions were not adopted. Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative isolation of the sites. ~~Plant operational noise from outside the proposed sites boundaries would not be apparent, as the buildings will be designed with internal and~~

Bar The process of making coins
The processes of making coins inevitably
produce noise, but none would be
apparent at the outside the site
boundaries, as the buildings ^{would be}
designed with internal ~~their~~

~~external~~ noise level controls to meet the requirements of the Federal Occupational Safety and Health Act. There would be some minor noise due to truck traffic and railroad switching engines servicing the rear of the facility. In any event, the facility would be designed and operated to be in full compliance with all local, State and Federal laws and ordinances pertaining to noise level controls.

*Exterior wall design would preclude
external noise problems.*

3.3 Energy Use and Conservation.

Energy ^{would} will be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado ^{has} indicated would be available in required amounts at either location. ²¹ The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects would occur gradually and would be influenced considerably by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability of gasoline for private automobiles and improvements and extensions of public transportation systems.

At both locations land for the proposed project is available, and water, sewerage, roads, electric power and other public services are already in existence as needed for the project.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact, social impact and tourist considerations. *

With the mint at the Clayton Trust Property site, the secondary consequences would be ^{minor} almost nil. As discussed in paragraph 3.1 above, it is expected that employee residences would gradually change with time from the circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of 2 miles to the northeast. The facility would not be ^{quite} as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists,

²¹ Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

* Regarding most of these factors, the employment characteristics of the mint are considered to be pertinent. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. ~~The overall mint average salary is \$10,839 per annum.~~

There are no mint employees currently in the low-income bracket (less than \$6,826 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary is \$10,839 per annum.

visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. It is not anticipated that there would be any increase in tourist VMT because of the relatively central metropolitan location of this site. The Clayton Trust site is close to other major tourist attractions in the area such as the Museum of Natural History, the City Park Zoo, the Coliseum and Stock Show Buildings, and the Denver Art Museum, and it is in the transportation corridor between the Denver Central Business District and Stapleton International Airport. The area encompassed by all of these tourist attractions will be readily accessible by frequent bus service by 1980, as discussed in detail in paragraph 3.1b of this Statement. There probably would be a minor change in money spent by tourists for lodging, meals and automobile service from the Central Business District to areas closer to the new mint. It is ~~not~~ considered that there

*Depend
paragraph*
would not be any measurable impact regarding housing, schools, economic or social factors for this location because, due to the closeness to the present mint location and housing availability, the proportions of mint employees residing in the city of Denver and surrounding suburban areas is expected to remain approximately the same as now exists. *Housing in Denver is commensurate with the needs of mint employees and the public school system.*

For the Federal Center location there would be somewhat more of an impact regarding these secondary factors. In this case, the employee residence center is anticipated to move about 4 miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to ^{8,000}150. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint employees currently in the low-income bracket (less than \$6,826 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary of \$10,839 is somewhat lower than that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the city of Denver and in Jefferson, Adams, and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT: LAKEWOOD" cited earlier, contains recommendations that the City of Lakewood ^{should} establish a policy of requiring low- and moderate-income housing in future developments and a goal that annual housing production ^{should} include 10 percent low- and moderate-income units. It is expected that current mint employees would relocate slowly over a considerable time period, if at all, and that most of the new employees would come from the existing Denver metropolitan area work force base, so that there would not be a sudden influx of new residents into areas in close proximity to the mint site. The following is quoted from the Department of Housing and Urban Development regarding housing availability for the two proposed sites. ²⁴

²⁴ Letter, Department of Housing and Urban Development to Frank W. Rhea, May 3, 1974. *F. R.*

Block

"In summary, the cost of housing in Lakewood is significantly higher than in Park Hill. Although the absolute prices and salaries will be somewhat different by the time the Mint is completed, we can expect that the relative differences will be comparable to the current situation. In general, the production levels and housing availability are greater in Lakewood. However, most of the housing is beyond the means of most Mint employees. Conversely, the availability of housing in Park Hill is more limited, but the cost of this housing is much more modest. At present, the Park Hill site would provide a much greater opportunity for moderate-income employees to move close to work.

"However, there remains somewhat of a paradox. One site (Park Hill) is near modest-cost housing, but little of it is available or being produced; the other site (Federal Center) is near areas of substantial housing production, but little of this is for moderate-income families. Therefore, we anticipate that the selection of either site will require the formulation of some sort of plan to assure the availability of moderate-price housing. We recommend that you contact us when construction of the Mint is underway. At that time, we will update our figures on the housing market and advise you as to what Federal and local resources might be utilized in the area to provide housing for moderate-income families."

would

With respect to schools, the additional mint residents of Jefferson County would add to the Jefferson County School District population of 76,000 students in the 1973-74 school year. (The Jefferson County School District operates all schools in Jefferson County, including those in Lakewood.) For the total mint employee force of 800, by 1985 (when employee turnover and relocations by retirements and other factors have been completed) it is estimated that 470 mint employees would live in Jefferson County, as contrasted to the 73 employees currently residing in the county. These approximately 400 additional residents would add about 270 pupils to the school population. Schools in Jefferson County generally are operating to capacity, so that additional capacity would have to be provided to accommodate the additional 270 students. There would be other minor changes in school populations throughout the metropolitan area which would be difficult to detect because of the large population growth in the area. However, the city of Denver does have excess space and declining school enrollments, such that the increased school population as the mint force increases from 461 to 800 could be accommodated in Denver without additional construction.

Some economic impact would be felt by the shift of the mint's payroll to a center about 4 miles westward of its present location. The mint payroll for Fiscal Year 1975 is budgeted at \$6.5 million, based on 532 employees. Using current dollars and the employee increase to 800 results in a year 1980 payroll of about \$9.75 million. *Of this, an average of 20 percent of each employee's salary is deducted for retirement, insurance and Federal and State income taxes, leaving \$7.8 million available for spendable income (\$9,750 per employee). Of the present 461 employees, 214 (46.4 percent) reside in the City and County of Denver. With the mint at the*

*270 additional residents for 2700 students
Denver Jeff Co schools at capacity*

Page 20

△ This location was the subject of a previous Environmental Impact Statement, dated February 2, 1973, and had been selected for the new mint. Because of changed circumstances, summarized on page 3 of this statement it was subsequently determined to be unsatisfactory.

The alternative of constructing the new mint at some location other than the two sites discussed in this statement has been explored in great detail for in excess of two years.

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other ^{major} coin production facilities, the Philadelphia Mint, ~~and the San Francisco Assay Office.~~

b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are generally available at reasonable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a ^{different location} ~~different city~~ would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the ^{Treasury, Philadelphia and the} General Services Administration, ~~and the Treasury Department.~~ A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the ^{Charlton Hunt property} ~~Park Hill Golf Course~~ and the Denver Federal Center have been selected for further consideration for the following reasons:

Site A - Park Hill Golf Course

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area.

Site B - Denver Federal Center

- a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).
- b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.
- c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in public ownership.
- d. The site would have fair access for tourists and official visitors.
- e. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

- (1) South Platte River from about 18th Avenue to Speer Boulevard.

△ → This location had been selected for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver along the west bank of the South Platte River have made this site untenable for the reasons discussed previously in this statement and which are summarized here for convenience. Due to the long, narrow configuration of the area, and the restricted width at about site center between the Valley Highway and the sharp bend in the South Platte River, layout of the new mint on this property would result in one large building complex on the northern portion and another building complex on the southern portion, with about 1,000 feet of relatively low, open space in between. The frequent through and local service train traffic, operating on tracks immediately adjacent to the mint structures, would produce visual and noise pollution to such an extent that there would not be an appropriate environment for the envisaged mint structures and grounds, which are planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

- (2) (5) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

- (6) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites ^{is} for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

made by the Board Service Administration
is the request of the Department of the Treasury,

With respect to schools, the additional mint residents of Lakewood would add about 150 pupils to the school system, with similar minor changes caused in school populations throughout the metropolitan area. These adjustments and additions would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's present annual payroll of \$5 million to a center about 4 miles westward of its present location. Also, a minor amount of tourists' expenditures for lunches and car service would be shifted away from downtown Denver.

4. Alternatives to the Proposed Action.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the City.

d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate environment for the mint.

f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

g. Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal make it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot Be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

- (3) c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the city of Denver and the Denver School Board and has not been offered by the city.

- (4) d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

- (5) e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

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- (9) i. A site in Aurora, north of 26th Avenue and I-70, between Tower Road and Picadilly Road.

This site has many favorable aspects, but it has no particular advantages relative to the two tentatively selected sites. Unfavorable factors are the considerable distance from the mass of housing

(21)

i. A site in Aurora, north of 26th Avenue
and I-70, between Tower Road and Piccadilly Road

This site has many favorable ~~factors~~ ^{aspects}
~~large~~ but it has no particular advantages
relative to the two tentatively selected
sites. Unfavorable factors are the
considerable distance from the mass of
housing in the Denver area and the
lack of access
difficulty in accessibility by employees
and tourists, particularly for mass
transit.

- * Both proposed transit sites are in the Denver Air Quality Control Region^(AQCR) and are subject to exactly the same air quality standards. There is no discernible difference between the two sites with respect to air pollution problems. Implementation of the State of Colorado Transportation Control Plan will require VMT reductions throughout the AQCR, primarily by means of a improved mass transit. This will serve the dual purpose of reducing ~~any~~ transit traffic ~~reduced generated pollutants~~ and any vehicle-generated pollutants and ~~and~~ of reducing traffic congestion ~~attributed~~ attributable to transit traffic.

in the Denver area and the difficulties in accessibility by employees and tourists, particularly ^{4x} for mass transit.

5. Probable Adverse Environmental Effects Which Cannot be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period. *In addition some adverse socio-economic effects were presented in earlier portions of this statement.*

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M. and 3 P.M. daily.

Additional stationary source and vehicle-generated pollutants would be minor and of about the same quantity and quality for both locations. Both proposed mint sites are in the Denver Air Quality Control Region (AQCR) and are subject to exactly the same air quality standards. ~~There is no discernible difference between the two sites with respect to air pollution problems.~~ Implementation of the State of Colorado Transportation Control Plan will require VMT reductions throughout the AQCR, primarily by means of ~~an~~ improved mass transit. This will serve the dual purpose of reducing any vehicle-generated pollutants and of reducing traffic congestion ~~attributable to mint traffic.~~ *including the mint traffic.*

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M and 3 P.M. daily. ~~Traffic increases in the vicinity of the Park Hill site probably would create more of a problem because of existing congestion on I-70 and Colorado Boulevard.~~

and Additional stationary source and vehicle-generated pollutants would be of about the same ^{and quantity} quantity for both locations. * ~~The additional pollutants in the Park Hill area are of more concern because of existing high air pollution levels in the vicinity and Federal/State plans to reduce vehicle miles traveled in this area.~~

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

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7. Any Irreversible and Irrecoverable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

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8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal, which do not appear to be of a major nature, are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce the traffic congestion and air pollution adverse impacts.

9. Problems and Objections Raised by Other Federal, State, and Local Agencies and by Private Organizations and Individuals.

Numerous comments on the Draft Revised Environmental Impact Statement were received. Substantive comments are attached hereto in Appendix F.

The comments received related primarily to traffic congestion; estimates of additional VMT, air quality and potential air pollution; ~~the legality of the proposed mint location;~~ and economic and social impacts of the proposed project. The discussion of these matters, and others, has been expanded in the appropriate sections of this final statement from that presented in the draft statement, in an attempt to resolve the issues raised in the various comments.

*or present
more fully*

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

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Numerous comments ~~on~~ ^{on} the Draft Revised Environmental Impact Statement were received. Substantial comments are attached hereto in Appendix F.

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Table of Documents Referred to in Draft Revised Environmental Impact Statement
for the Location and Construction of the Proposed New Denver Mint.

The following is a list of the documents referred to in the Statement. As stated on Page 4 of the Statement, these documents are available for consultation by any interested person at the office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

1. Letter from the Mayor of the City and County of Denver to Frank W. Rhea, dated February 12, 1974.
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973.
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
6. CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration.
7. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.
8. Same as No. 2 above.
9. Same as No. 2 above.
10. Same as No. 7 above.
11. Statistical Analyses of Air Quality Data, 1970, Suspended Particulates, Colorado Department of Health, Air Pollution Control Division, March 14, 1972, pp. 4-5.
12. Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

List each document only
over. Show in parentheses
footnote involved

Table of Documents Referred to in Draft Revised Environmental Impact Statement for the Location and Construction of the Proposed New Denver Mint.

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The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

1. Letter from the Mayor of the City and County of Denver to Frank W. Rhea, February 12, 1974. (Footnote 1)
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973. (Footnote 2, 3, etc.)
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973. 4, 9
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Officer, January 1971. 5
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.
6. State Historical Society of Colorado Ltr. dated April 3, 1974 to Frank W. Rhea.
7. Letter, State Historical Society of Colorado, April 3, 1974 to Frank W. Rhea.
8. CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration. Not adopted as of this date.
9. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974. 12, 15
10. Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974.
11. Letter, Denver Regional Council of Governments to Frank W. Rhea, April 24, 1974. Results of a Joint Regional Planning Program origin and destination study of 1971 indicate average work length trip for the Denver region is 7 miles.
12. Same as No. 9 above.
13. Same as No. 10 above.

14. Letter, General Services Administration to Frank W. Rhea, April 24, 1974.
15. Same as No. 14 above.
16. Letter, Colorado Department of Health to Frank W. Rhea, April 18, 1974. 19, ✓✓
17. Code of Federal Regulations, Title 40, Part 52, Subpart G, Approval and Promulgation of Implementation Plans for the Colorado Transportation Control Plan issued by the Environmental Protection Agency.
18. ~~XXXX~~ Same as No. 17 above.
19. Same as No. 16 above.
20. Transportation Control Strategy Development for the Denver Metropolitan Area, December 1972, prepared by TRW Transportation and Environmental Operations for the Environmental Protection Agency.
21. Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.
22. Letter, Department of Housing and Urban Development to Frank W. Rhea, May 3, 1974.
23. Same as No. 22 above.
24. Same as No. 22 above.

UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

Annual Salaries	<u>No. of Employees</u>		<u>Total</u>
	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary - \$ 10,324
Average Annual General Schedule Salary - 12,841
Average Annual Mint Employee Salary - 10,839

New Mint Personnel
G.S. 107 x 1.5 = 160
W.B.
640
800

640 = 1.8
354

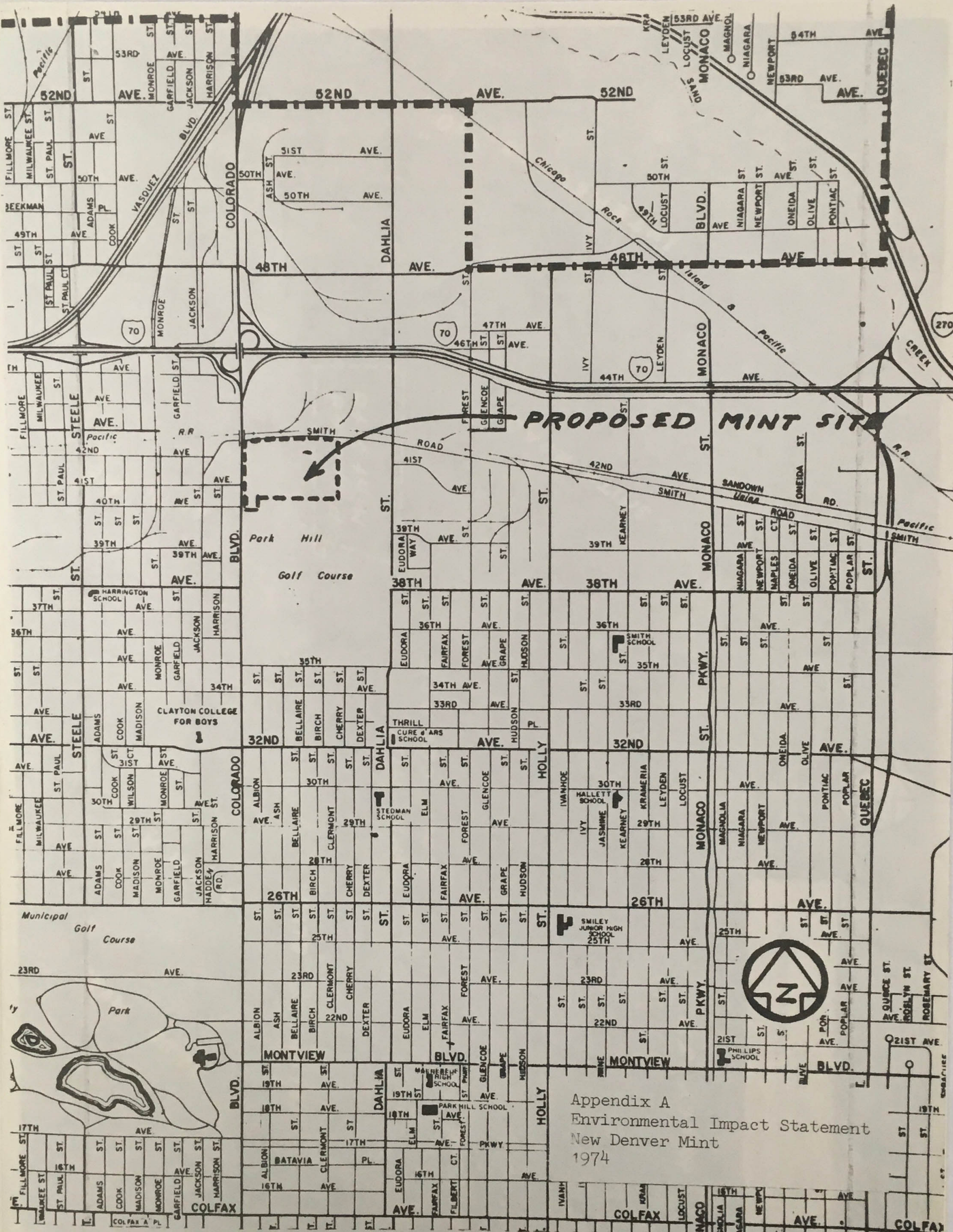
Appendix E
Environmental Impact Statement
New United States Mint
1974

APPENDIX F

(Page F-1 through F-92)

Attached hereto are copies of all substantive comments received on the Draft Revised Environmental Impact Statement for the proposed new Denver Mint. These comments are arranged in the same order as listed in paragraph 5 of the Summary Sheet for this Final Revised Environmental Impact Statement.





Appendix A
Environmental Impact Statement
New Denver Mint
1974

32ND AVE.

35TH AVE.

40TH AVE.

COLORADO BLVD.

PARK HILL
GOLF COURSE

DAHLIA ST.

Proposed
Mint Site

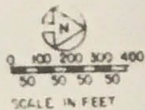
SMITH ROAD

INTERSTATE "70"

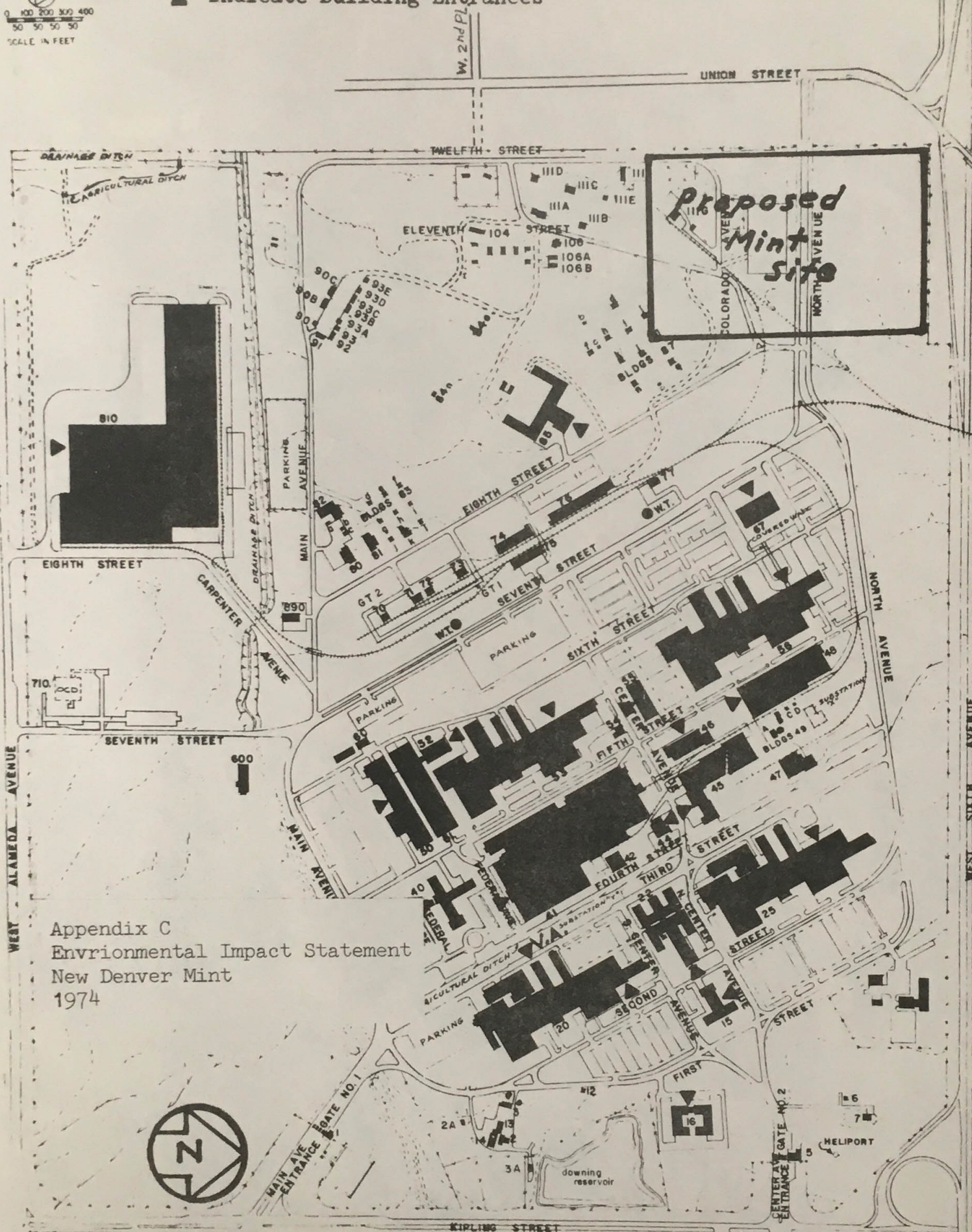
HOLLY ST.



Appendix B
Environmental Impact Statement
New Denver Mint
1974



▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

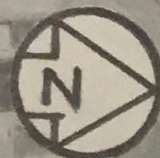
Proposed
Mint Site

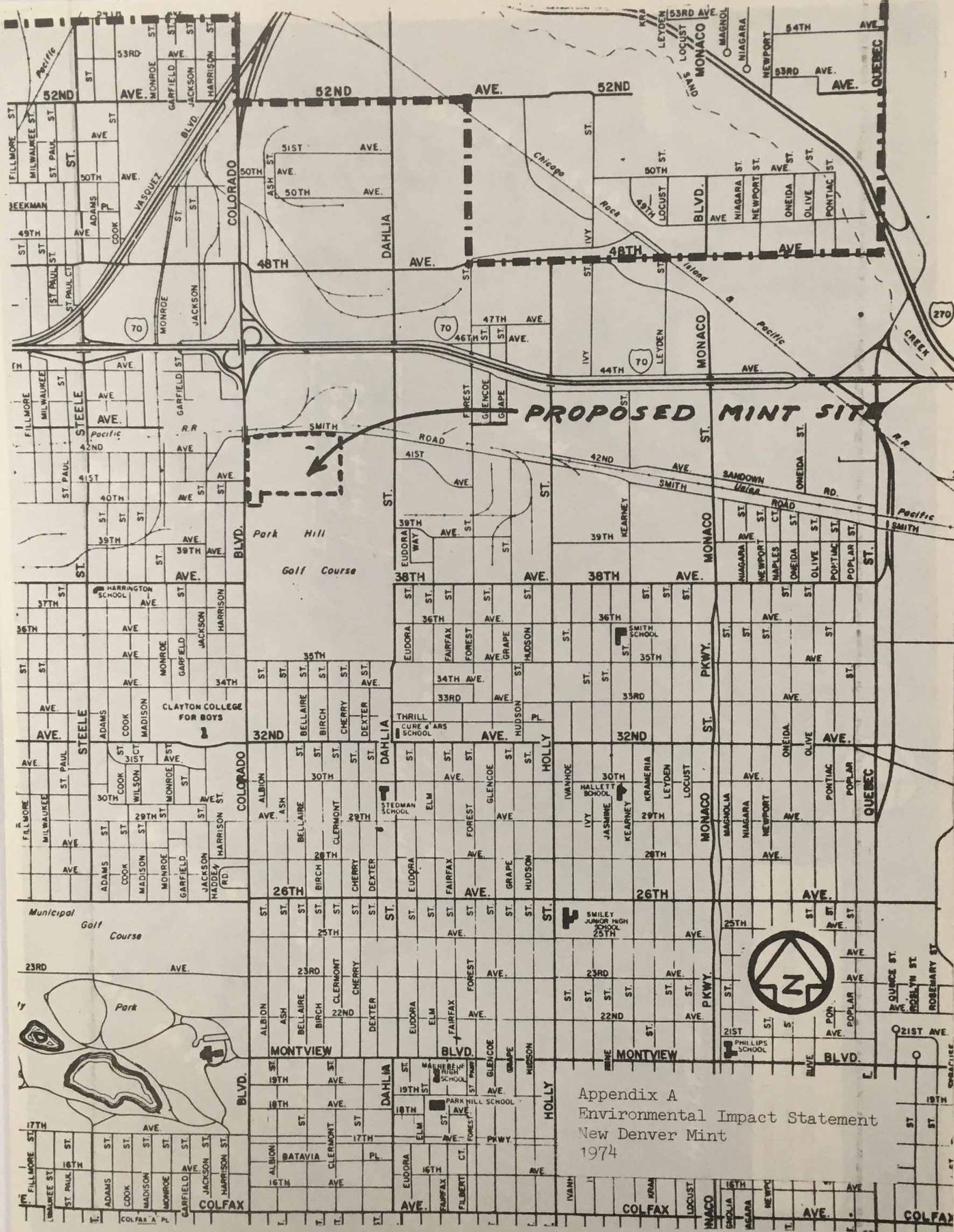
ALAMEDA AVE.

WEST SIXTH AVE.

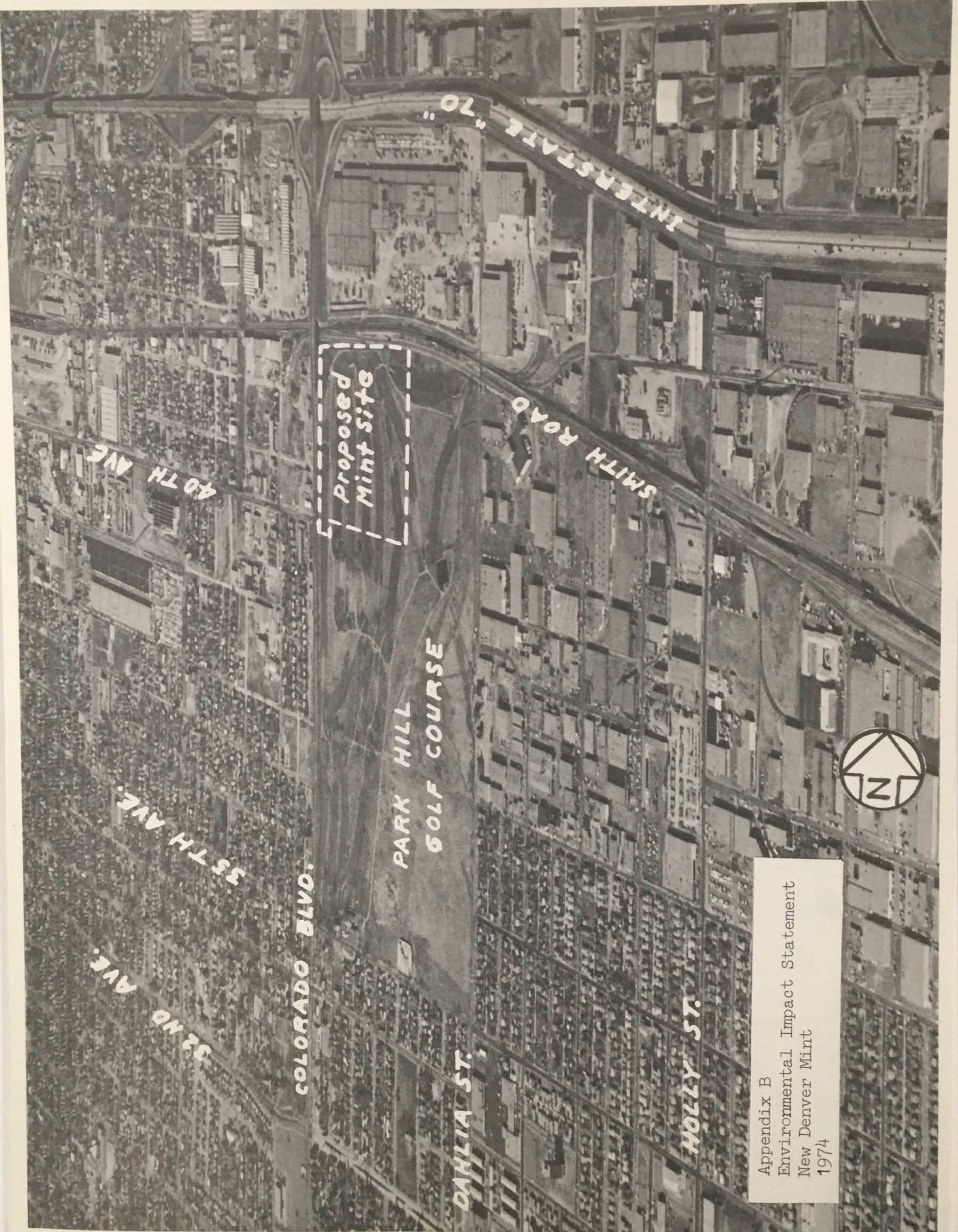
KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974





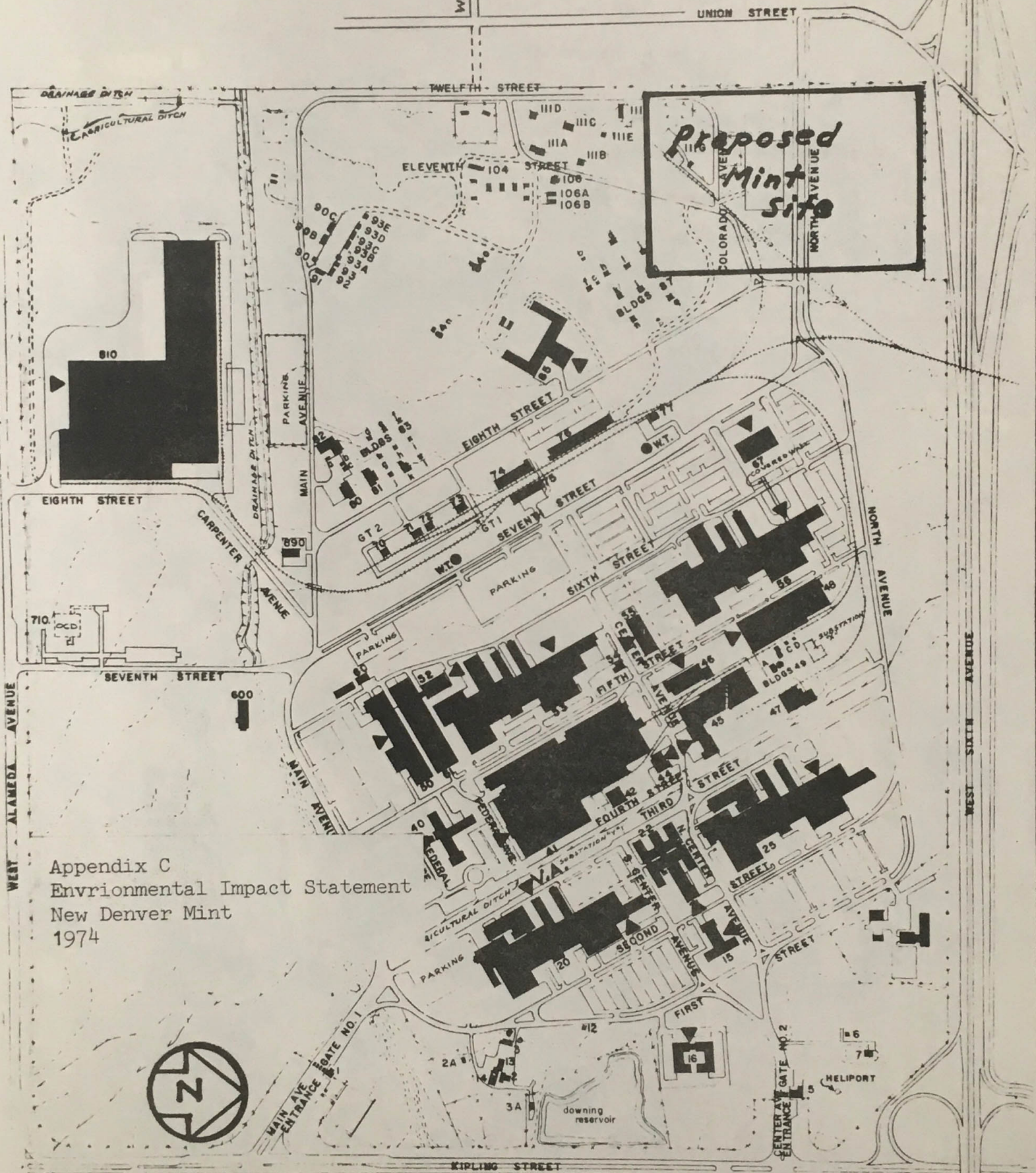
Appendix A
Environmental Impact Statement
New Denver Mint
1974



Appendix B
Environmental Impact Statement
New Denver Mint
1974



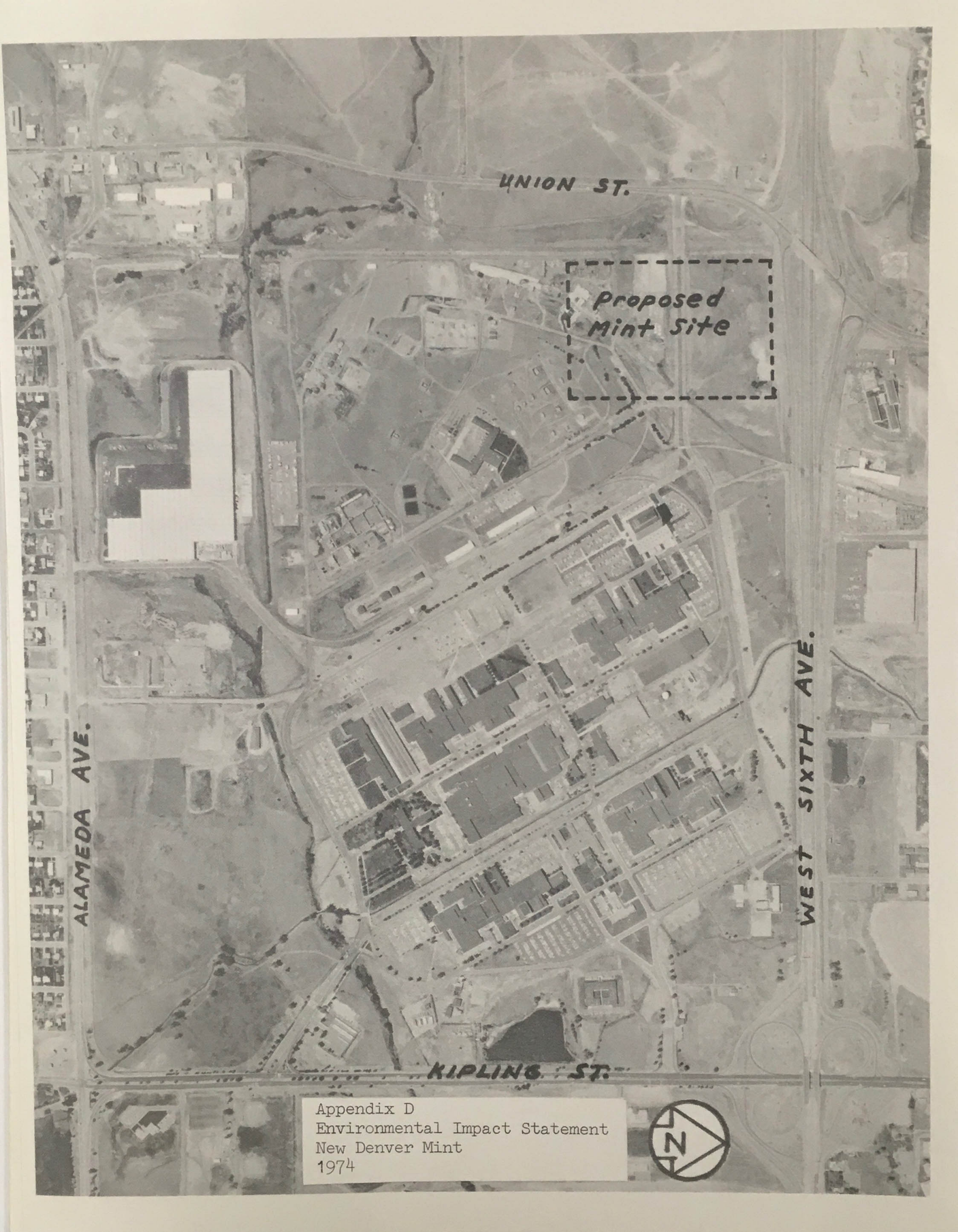
▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

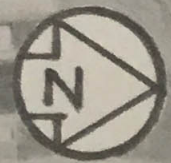
Proposed
Mint Site

ALAMEDA AVE.

WEST SIXTH AVE.

KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974



UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

<u>No. of Employees</u>			
<u>Annual Salaries</u>	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	<u>Total</u>
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New Mint Personnel
G.S. 107 x 1.5 = 160
W.B.
640
800

640 = 1.8
354
1

Appendix E
Environmental Impact Statement
New United States Mint
1974

NEW UNITED STATES MINT
DENVER, COLORADO
AJC. PK

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

Draft Environmental Impact Statement

1. Type of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, two-story buildings and auxiliary support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is proposing two alternative locations for the new Denver Mint. Until environmental impact studies have been received and evaluated, the two locations are (1) the north-west corner of the intersection of Colfax Avenue and the north-south street, and (2) the southwest corner of the intersection of Colfax Avenue and the north-south street. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

3. Summary of Environmental Impacts and Environmental Effects: , 1974

The proposed facility should have a favorable effect on the aesthetics of the general area and provide an appropriate and beneficial land use of either proposed site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the area, (2) the addition of stationary source and vehicle-generated air pollutants, and (3) the various short-term construction period.

Prepared for

U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220

4. Major Alternatives:

- Continuation of the operation of the present Denver Mint without constructing a new facility.
- Construction of a new mint at some other location.

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is proposing two alternative sites, without favoring either location until environmental comments on the proposed action have been received and evaluated. The two proposed sites are (1) the northwest corner of the Park Hill Golf Course in Denver, and (2) the northwest corner of the Denver Federal Center. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should have a favorable effect on the aesthetics of the general area and provide an appropriate and beneficial land use of either proposed site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

5. Comments Requested From:

Environmental Protection Agency
Department of Agriculture
Department of the Army, Corps of Engineers
Department of Commerce
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of Transportation
Department of the Interior
Advisory Council on Historic Preservation
General Services Administration
Missouri River Basins Commission
Office of Economic Opportunity
State of Colorado Division of Commerce and Development
State of Colorado Department of Health
State of Colorado Department of Highways
State of Colorado Division of Wildlife
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
Urban Drainage and Flood Control District
City and County of Denver
Colorado Water Conservation Board
Board of Water Commissioners, City and County of Denver
City of Lakewood
Jefferson County
Rocky Mountain Center on Environment
Colorado Federation of Women's Clubs
Thorne Ecological Institute

6. Draft statement made available to the Council on Environmental Quality and the public on _____.

7. Unavoidable and Irreversible Consequences
of Actions

8. Other Impacts and Considerations of
Various Policies

Appendix A - Map of Park Hill Golf Course Area

Appendix B - Aerial Photograph of Park Hill Golf Course Area

Appendix C - Map of Denver Federal Center Area

Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Wage Scale of Denver Mint Employees

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Appendix C - Map of Denver Federal Center Area

Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Wage Scale of Denver Mint Employees

ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year. More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. The present Denver Mint has a capacity of 4.0 billion coins per year. Building space and outside areas in the present United States Mint institutions are saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The proposed new mint would have the mission of producing domestic coins ranging in denomination from 1¢ to \$1, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

a. Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

b. Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

c. Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (1) A site consisting of a minimum of 30 acres.
- (2) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, to be in harmony with and to enhance the area where it is located, and in appreciation of the important tourist aspects of the facility.

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until public environmental comments on the proposed action have been received and evaluated. The two proposed alternative sites are:

Site A - The northwest corner of the Park Hill Golf Course in Denver, near the intersection of Colorado Boulevard and Smith Road (See attached map, Appendix A, and attached aerial photograph, Appendix B.)

Site B - The northwest corner of the Denver Federal Center,

near the intersection of Union Street and the West Sixth Avenue Freeway. (See attached map, Appendix C, and attached aerial photograph, Appendix D.)

The proposed sites supersede the previously selected site along the west bank of the South Platte River, extending from about 18th Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement, dated February 2, 1973. This site has been abandoned due to the aesthetic incompatibility of locating the new mint on a long, narrow strip of land immediately adjacent to the mainline north-south railroad trackage through Denver that the Burlington Northern Railroad plans to construct on the west bank of this reach of the South Platte River. Due to the size of the mint structures and seriously constricted width in the site center, layout of the mint on this property would result in large building complexes at the two end portions of the area, with about 1,000 feet of low, open space in between. The frequent train traffic close to the mint structures and grounds would produce visual and noise pollution completely out of harmony with the envisaged new mint, which is being planned to serve as an important tourist attraction and to reflect the importance and dignity of the United States Government coinage operations performed in the facility. The train traffic would be highly visible to the many public visitors (approximately 250,000 per year), to the mint personnel themselves, and from surrounding areas, particularly from the Denver Central Business District. The Treasury had no knowledge of plans to place mainline railroad trackage in such close proximity to the mint property until October 1973, long after the formal South Platte site agreement between the City of Denver and the United States Government was signed on May 24, 1973.

Authority for a mint at Denver is contained in 31 U. S. Code 261, which reads as follows:

"The different mints and assay offices shall be --

"First. The mint of the United States at Philadelphia.

"Second. The mint of the United States at Denver.

"Third. The United States assay office at New York.

"Fourth. The United States assay office at San Francisco."

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Park Hill Golf Course

The proposed site consists of about 30 acres located in the northwest corner of the Park Hill Golf Course at the intersection of Colorado Boulevard and Smith Road. The area is a portion of Clayton Trust land controlled by the Mayor of Denver and the Denver City Council as

trustees. The proposed site is about 4 miles northeast of the Denver Central Business District. Presently, the site is occupied by the Park Hill Golf Course. In order to provide the necessary space for the new mint and grounds, eight golf holes would have to be relocated in the currently vacant portions of the golf course area. If this site is selected, Denver City officials plan to rebuild the golf holes affected during 1974, so that there would be no time lost in availability of the 18-hole course for area golfers.

A rail line is adjacent to this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for desirable rail service to the mint. This is advantageous as regards the proposed mint, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage. There are no historic resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, across Smith and the railroad, is an industrial and warehousing area. The buildings are relatively new and barely visible from the proposed mint site. To the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This park open area would separate the mint site from light industry to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed or relocated to make the site usable.

The proposed site is well drained and is not subject to flooding or a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado

Boulevard and Colfax Avenue. Transportation would be by bus from this point to the proposed site, a distance of about 2 miles.

The climatic environment of the proposed site is generally that of the City of Denver, which is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent. This site is relatively unfavorable from a meteorological and air pollution point of view. Further discussion of this matter is contained in the probable environmental section of this statement.

The addition of 800 employees at this location would be consistent with the population growth and economic projections prepared by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research Service of the Department of Agriculture.

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

b. Site B - Denver Federal Center

The proposed site consists of about 30 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site is approximately 8 miles west of the Denver Central Business District and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide adequate space for the new mint.

A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This is advantageous as regards the proposed mint, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Street, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing storage buildings which are to be removed. There are no historic

resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, and across the Sixth Avenue Freeway, are several recently constructed commercial buildings. To the west and across Union Street are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center, but there are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding or a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8 to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation to the Federal Center is now provided by the Denver Metro System. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned on Union Street between Alameda Avenue and Sixth Avenue. There are presently about 6,500 employees at the Center, thus the Mint's approximately 800 employees would be joining with an existing base for public transportation.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area.

The addition of approximately 800 employees at the Denver Federal Center is consistent with the population growth and economic projections for the Denver regional area contained in the "OBERS" Projections prepared by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research Service of the Department of Agriculture.

Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Park Hill Golf Course

Construction of a new mint on the Park Hill site is considered to be in harmony with Federal, State, City and locality land use plans,

policies and controls for the affected area. The area in question is designated as park or open space on the latest land use plan published by the Denver Regional Council of Governments. However, the latest City of Denver land use plan (1971) shows approximately three-fourths of the area involved as industrial space and one-fourth as park or open space. Denver Regional Council of Government officials have indicated that as the entire area is well within the City limits, and the land use change is minor in scope, an amendment to Regional land use plans would not be required. The new architecturally pleasing mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with the commercial and industrial structures and activities to the north and east. Road and rail access into the north side of the site could be accomplished so as to minimize, if not completely eliminate, any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust property could be accomplished before mint construction commences (projected for the Summer of 1975) so that there would be no interruption in availability of golf course facilities. The proposal would not involve displacement of residences nor commercial enterprises.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. Also, there would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site, across Union Street, and to the north, across Sixth Avenue, are zoned E72-77 Commercial, under the zoning plan of the City of Lakewood. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments, which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD", a draft comprehensive plan for the future development of Lakewood.

It is believed that locating the new mint at this proposed site would be a beneficial land use in conformance with plans, policies and controls for the affected area.

3. The Probable Impact of the Proposed Action on the Environment.

It has been concluded that construction of a new mint on either of the proposed sites would have some significant effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows:

3.1 Potential Pollution - Air, Water, Solid Wastes, Noise and Visual.

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential stationary source pollution problems associated with the construction and operation of the facility. These potential problems are similar for the proposed locations and therefore, the discussion in this subparagraph pertains to both the Park Hill site and the Federal Center site. Also, potential air pollution from the plant itself is discussed further in paragraph 3.3 below, in conjunction with air pollution from automotive vehicle sources. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring advanced state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

Following is a listing of potential problems envisaged and a discussion of planned systems and procedures for eliminating and reducing the potential pollution:

a. The new mint will generate some fumes from its metal melting and casting operations, from strip rolling and strip finishing and from blank cleaning and annealing.

Analysis: All air extruded from the plant will be cleaned by electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, state and national standards for air quality. Similar, but older, models of the

types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards.

b. Chemical effluent will be produced from the assay laboratory and from the blank cleaning operations. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses.

Analysis: All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

c. There is a theoretical potential for thermal water pollution because of the requirements for cooling water for the melting and rolling operations.

Analysis: Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers or ponds and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to minimize fog-producing conditions. Any fog produced would be dissipated within the site boundaries.

d. Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable soils.

Analysis: Solid wastes will be processed within the plant, with major quantities of scrap metals being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to Environmental Protection Agency approved disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control. Particular attention will be applied to surface drainage control during the construction phase to prevent erosion and to prevent any increase in turbidity in adjacent drainage channels.

e. There will be some noise and visual pollution, particularly during the construction phase, with a potential for noise and visual pollution after project completion, if adequate precautions are not adopted.

Analysis: Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative

isolation of the sites. Operational noise and visual pollution potential at the new mint will be eliminated by designing buildings with internal and external noise level controls, and by construction of sufficient enclosed storage facilities so that metal and other supplies will not be stored in outside open areas, as in the case at the present Denver Mint. This would have the effect of removing a relatively minor noise and visual pollution source from the downtown Denver area.

3.2 Transportation of Materials, Employees and Visitors into and out of the Facility.

These introductory remarks pertain to both proposed sites. A new mint at either location would produce additional automotive traffic loads in the specific site vicinity and in the Denver metropolitan area in general. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 11 percent reside within a 2-mile radius of the existing mint, 50 percent within a 5-mile radius, and 80 percent within a 10-mile radius. After several years of operational status of the mint, it is expected that this residence pattern would be generally applicable to the proposed new locations, with some adjustment due to housing area locations as discussed below for each site. Presently, there are about 285 private automobiles used daily by employees in getting to and from work. These automobiles travel an average one-way distance of 6 miles, for a total daily vehicle miles traveled of 3,420.

For either location the additional traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for mint employees' private automobiles would be approximately 125 cars inbound and 125 cars outbound during each shift change (presently 7 A.M., 3 P.M. and 11 P.M.), 70 cars inbound at about 8 A.M. and 70 cars outbound at about 4:30 P.M. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity and the Denver metropolitan area in general, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. Tourist traffic, averaging an estimated 200 cars and 5 busses daily, would naturally occur during off-peak traffic periods, as visitor hours would be from 9 P.M. to 3 P.M. daily. The mint traffic would terminate in its own parking areas, and thus, would not add to parking congestion in the site vicinity.

a. Site A - Park Hill Golf Course

While the overall road network in the vicinity of this site is excellent, the additional traffic generated by the mint would add to existing congested conditions on Colorado Boulevard and on I-70. In 1971

(the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 28,600 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles. Both of these arteries are saturated during peak traffic periods. Mint employee traffic would add 900 one-way trips at the immediate site location, if 1973 usage patterns are continued. Tourist traffic would add an average of 410 one-way trips daily.

This site is presently served by Denver metropolitan busses, and it is expected that this service will be expanded and bus frequency increased in accordance with the Summary Report issued in March 1973 by after several years of mint operations in this location, the center of gravity of mint employee residences would be about 2 miles to the south-west towards the City area. On this basis, the net daily additional VMT for the Peak Hill site is estimated as follows:

900 one-way trips X 2 miles (average employee travel distance to center of gravity)	= 5,400
900 X 2 miles (center of gravity to mint site)	= 1,800
	<u>7,200</u>
Mint VMT for current operation at the existing Denver Mint	= 3,420
Net additional VMT	<u>3,780</u>

b. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available to the Federal Center from Sixth Avenue, Alameda Avenue, Kipling Street and Union Street. The mint daily traffic of 900 employee one-way trips and 410 tourist one-way trips would add to existing loads on the access routes, which had daily averages as follows in 1971, according to State Highway Department counts:

Sixth Avenue west of Kipling	32,300
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	13,700
Alameda west of Kipling	12,000

Union Street is currently being reconstructed to provide expansion from two to six lanes along the proposed mint portion of the Federal Center, so that existing peak-hour congestion on this route should be reduced.

The mint employee traffic generally would be counterdirectional to the mass of rush-hour movements, which are City-center oriented

the Regional Transportation District. However, the closest service by the rail based Personalized Rapid Transit System, as planned by the Regional Transportation District, would be on the Colfax Avenue line at the intersection of Colfax Avenue and Colorado Boulevard. Employees and visitors would have to transfer to busses at this point to proceed the remaining approximate 2 miles to the mint.

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration naturally occurring in the immediate site area.

Due to housing availability locations, it is expected that after several years of mint operations in this location, the center of gravity of mint employee residences would be about 2 miles to the southwest towards the City core. On this basis, the net daily additional VMT for the Park Hill site is estimated as follows:

900 one-way trips X 6 miles (average employee travel distance to center of gravity) = 5,400

900 X 2 miles (center of gravity to mint site) = 1,800
7,200

Minus VMT for current operation at the existing Denver Mint - 3,420

Net additional VMT 3,780

b. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available to the Federal Center from Sixth Avenue, Alameda Avenue, Kipling Street and Union Street. The mint daily traffic of 900 employee one-way trips and 410 tourist one-way trips would add to existing loads on the access routes, which had daily averages as follows in 1971, according to State Highway Department counts:

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Union Street is currently being reconstructed to provide expansion from two to six lanes along the proposed mint portion of the Federal Center, so that existing peak-hour congestion on this route should be reduced.

The mint employee traffic generally would be counterdirectional to the mass of rush-hour movements, which are City-center oriented

in the mornings and outbound oriented in the afternoons. Also, the Regional Transportation District's plans call for service to the Federal Center by the Personalized Rapid Transit System, with a main station on Union Street between Alameda and the Sixth Avenue Freeway. Also, the total Federal Center employee population, in excess of 6,000, serves as a good base to justify early development of improved public bus systems, to the end that there might be reductions in employee use of private automobiles.

For this proposed location, it is expected that after several years of operation the center of gravity of mint employee residences would be about halfway between the site and the City core, or about 4 miles to the east of the proposed site. Similar to the discussion for Park Hill, the net daily additional vehicle miles traveled is estimated as follows:

900 one-way trips x 6 miles (average distance to center of gravity)	=	5,400
900 x 4 miles (center of gravity to mint site)	=	<u>3,600</u>
		9,000
Minus current VMT	-	<u>3,420</u>
Net additional VMT		5,580

3.3 Air Pollution - Stationary Source and Motor-Vehicle Generated.

As discussed in paragraph 3.1a above, it is planned to install precipitators, centrifuges, filters and scrubbers to cleanse all air emitted from the mint facilities. With this equipment, it is expected that fumes collected from metal processing operations would be cleaned to zero or near zero pollutant levels, such that air pollution effects from these operations is considered to be negligible. However, there would be some stationary source pollution from the facility heating plant. At the Federal Center there is sufficient capacity available in the existing central heating plant to serve the proposed mint. In calendar 1973 this plant used relatively clean fuels and was in compliance with State of Colorado Health Department emission and control standards. Under these conditions, with the additional load of the new mint, average particulate emissions would be _____ micrograms per cubic meter and total additional daily particulate emissions due to the heating of the mint would be _____ tons. If clean fuels are not available in the future for operation of this heating plant, it may be necessary for the General Services Administration to install some type of precipitators in the plant smokestacks. The General Services Administration is studying this matter now. In any event, by the planned new mint fully operational date of 1980, particulate emissions should be equal to, and probably less than, the figures cited above for 1973 based on clean fuels.

At Park Hill, it would be necessary to construct a heating plant for the new mint only, which would be fired with relatively clean fuels

if available. If not, precipitators would be installed in the smoke-stacks and the emissions would be comparable in quality and quantity to those caused if the mint load were added to the central plant of the Federal Center.

In addition to the stationary source pollutants, motor vehicle pollutants would be generated throughout the Denver metropolitan area by the net additional vehicle miles traveled of 3,780 for the Park Hill site and 5,580 miles for the Federal Center site. In each case, the additional VMT would be at maximum levels in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

Analysis and evaluation of the relative significance of the additional air pollution for the two proposed sites should be done in consideration of current levels of pollution and in consideration of on-going programs to improve air quality in the Denver area. The following data on ambient air quality is from "Statistical Analysis of Air Quality Data 1970, Suspended Particulates", published by the Colorado Department of Health, Air Pollution Control Division, on March 14, 1972:

Statistical Analysis of Ambient Air Quality Data
Pollutant: Suspended Particulates
Unit: Micrograms Per Cubic Meter
Year: 1970

<u>Station</u>	<u>Quarter</u>	<u>No. Samples</u>	<u>Arithmetic Mean</u>	<u>Minimum/Maximum</u>
Lakewood	1	24	80	30/211
	2	27	67	15/149
	3	24	55	21/168
	4	20	70	30/109
	Total	95	68	15/211

Writer's shown below
*(Note: Data for the sampling station/is basically characteristic of conditions at Park Hill Golf Course)

*School Admin. Building	1	23	149	74/255
	2	24	100	66/181
	3	23	98	40/189
	4	20	122	43/229
	Total	90	117	40/255

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan

SUMMARY OF THE TRANSPORTATION CONTROL PLAN

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

(Writer's Note: Table I omitted but Table II showing effects of Strategies by percentages is included below.)

Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program..	31	23.0
2. Inspection/maintenance.....	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photochemical oxidants (hydrocarbons) by May 31, 1977."

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions. As the Park Hill site is in both demonstration areas, the net additional VMT caused by mint traffic, although minor in comparative scope, would be counter to the State of Colorado and Environmental Protection Agency programs to improve air quality in the areas adjacent to this proposed site.

Although the net additional VMT caused by mint traffic for the Federal Center site would be greater than for Park Hill, it is considered that the net adverse impact on air quality would be less with the new mint located at the Federal Center. This is based on the following reasons. The stationary pollutant source and the concentration of the vehicle source would be a significant distance away from existing high pollution levels and pollution sources, which are concentrated in the Denver Central Business District. The worst pollution levels are centered on Denver proper and occur when atmospheric conditions are stable and winds are light. This produces downslope winds along the Platte Valley from the south-southwest during the nighttime and early morning hours, and reversals from the north-northeast during the daytime as heating from the sun takes effect. Due to this peculiar meteorology of the Denver area during periods of highest pollution levels, pollutants from the Federal Center area generally would flow back and forth parallel to the South Platte Valley considerably to the west of the high pollutant concentrations in the downtown area, whereas pollutants from the Park Hill vicinity would tend to reinforce these high concentrations.

3.4 Energy Use and Conservation.

Energy will be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado has indicated would be available in required amounts at either location. The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating. Also, in the design and operation of the facility, reliance would be placed upon the use of those forms of energy that appear most likely to be available for the long-term from the domestic resource base.

3.5 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects, also, would be considerably influenced by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability

of gasoline for private automobiles and improvements and extensions of public transportation systems.

Land, water, sewerage, roads, electric power, telephones and other public services are already in existence to support the proposed project at both locations.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact and tourists considerations.

With the mint at the Park Hill Golf Course, the secondary consequences would be almost nil. As discussed in paragraph 3.2 above, it is expected that employee residences would gradually change with time from the present circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of 2 miles to the northeast. The facility would not be as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. There possibly would be a minor shift in money spent by tourists in the Central Business District to areas closer to the new mint. Also, tourist business might serve as the impetus for construction of a new motel and restaurant in the area across Colorado Boulevard from the proposed site.

For the Federal Center location there would be somewhat more of an impact regarding these factors. In this case, the employee residence center is anticipated to move about 4 miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to about 150. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint employees currently in the low-income bracket (less than \$7,000 per year), and there are 57 employees in the moderate-income bracket (\$7,000 to \$9,000 per year). The overall mint average salary of \$10,839 is generally comparable with that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the City of Denver and in Jefferson, Adams and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT: LAKEWOOD" contains recommendations that the City shall establish a policy of requiring low- and moderate-income housing in future major developments and a goal that annual housing production shall include 10 percent low- and moderate-income units.

With respect to schools, the additional mint residents of Lakewood would add about 150 pupils to the school system, with similar minor changes caused in school populations throughout the metropolitan area. These adjustments and additions would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's present annual payroll of \$5 million to a center about 4 miles westward of its present location. Also, tourists expenditures approximating \$100,000 per year for lunches and car service would be shifted away from downtown Denver.

4. Alternatives to the Proposed Action.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The alternative of constructing the new mint at some other location, other than the two sites discussed in this statement, has been explored in great detail for in excess of two years.

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other coin production facilities, the Philadelphia Mint and the San Francisco Assay Office.

b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are generally available at reasonable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the General Services

Administration and the Treasury Department. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the Park Hill Golf Course and the Denver Federal Center have been selected for further consideration for the following reasons:

Site A - Park Hill Golf Course

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area.

Site B - Denver Federal Center

a. The site is excellent for the proposed new mint from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion).

b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.

c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in public ownership.

d. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

a. South Platte River from about Eighteenth Avenue to Speer Boulevard

This location had been selected for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver along the west bank of the South Platte River have made this site untenable. Due to the long, narrow configuration of the area, and the restricted width at about

site center between the Valley Highway and the sharp bend in the South Platte River, layout of the new mint on this property would result in one large building complex on the northern portion and another building complex on the southern portion, with about 1,000 feet of relatively low, open space in between. The frequent through and local service train traffic, operating on tracks immediately adjacent to the mint structures, would produce visual and noise pollution to such an extent that there would not be an appropriate aesthetic environment for the envisaged mint structures and grounds, which are planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

b. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

c. University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the City.

d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

e. York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate aesthetic environment for the mint.

f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

g. Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal make it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are: (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A. M. and 3 P. M. daily. Traffic increases in the vicinity of the Park Hill site probably would create more of a problem because of existing congestion on I-70 and Colorado Boulevard.

Additional stationary source and vehicle-generated pollutants would be of about the same quantity for both locations. The additional pollutants in the Park Hill area are of more concern because of existing high air pollution levels in the vicinity and Federal/State plans to reduce vehicle miles traveled in this area.

The major environmental impacts of the construction period will be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project will include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice

versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would be Involved in the Proposed Action Should It be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

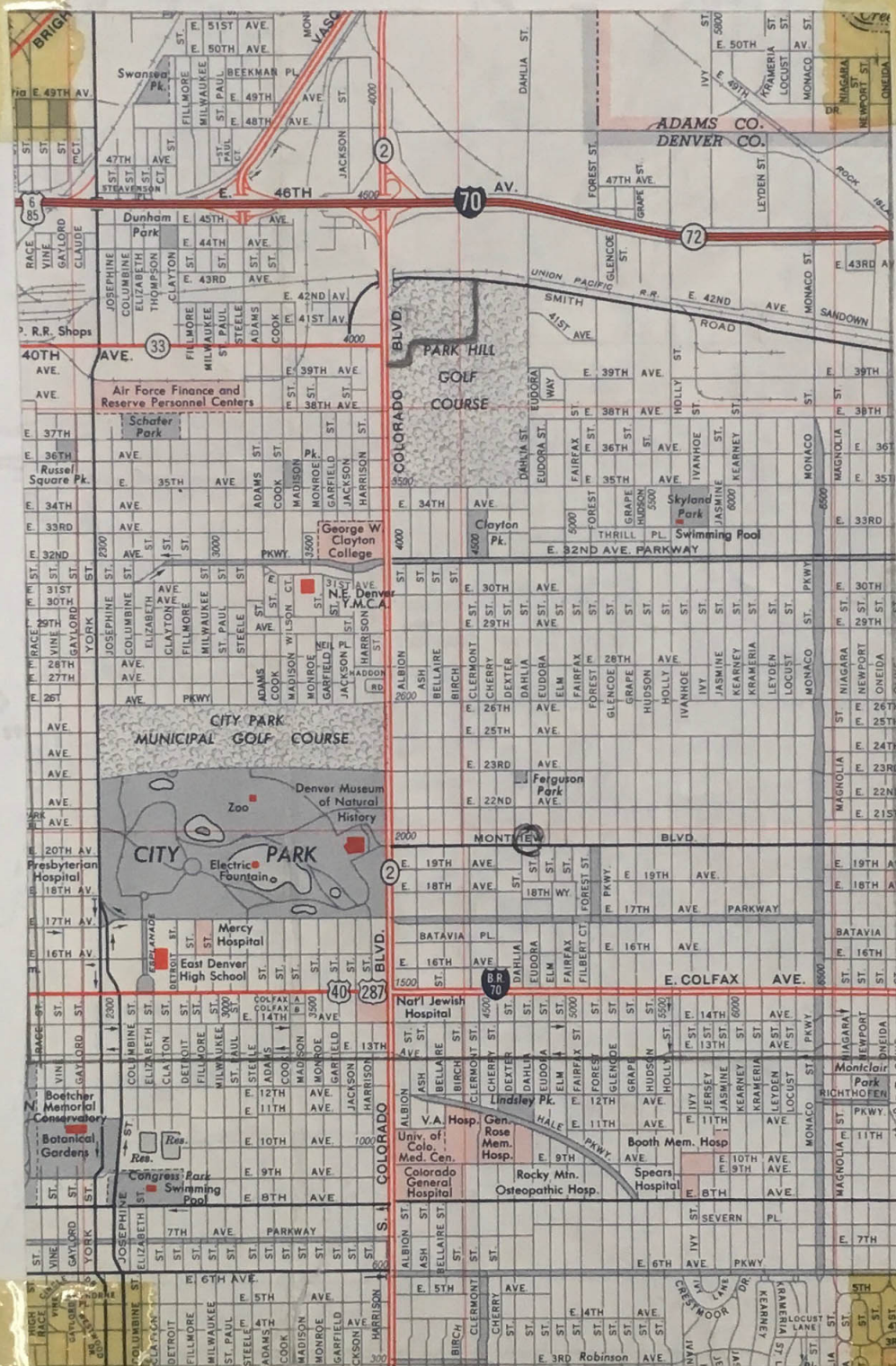
Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce the traffic congestion and air pollution adverse impacts.

NOTE: The maps and aerial photographs showing the two site areas are being prepared. In all cases, they will be marked to show the specific proposed sites, plus streets, areas and important features that are mentioned in the narrative of the Statement. The map attached to this page shows the approximate area that will be covered for Park Hill in both the map and the aerial photograph (Appendix B). Quality of finished products will be of professional standards.





▲ Indicate Building Entrances

APPENDIX ~~XC~~

NOTE: APP D
will cover a larger
area, showing more
of the area to the north
and east of the site.
1300' Fair

Proposed
Mint
Site



DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68

UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

<u>Annual Salaries</u>	<u>No. of Employees</u>		<u>Total</u>
	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary - \$ 10,324
Average Annual General Schedule Salary - 12,841
Average Annual Mint Employee Salary - 10,839

DJC-P 2

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER FEDERAL CENTER - DENVER, COLORADO

Draft Environmental Impact Statement

1. Kind of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-rise, one-story buildings and multi-story support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, maneuvering areas, all necessary utilities and landscaping. Total gross building space will be about 700,000 sq. ft. and location is in the northwest corner of the downtown area of Denver, Colorado. The State of Colorado, the City and County of Denver and Jefferson County would be affected by the proposed action. The proposed action would assure the highest quality value for the United States.

Prepared by
Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should have a favorable effect on the character of the general area and provide an appropriate and beneficial use of the proposed site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which the operation will bring to the area, and (2) the various short-term impacts of the construction period.

4. Major Alternatives Considered:

Prepared for

a. Continuation of the operation of the present Denver Mint without constructing a new facility.
U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220
b. Construction of a new facility at a different location.

5. Agencies Consulted From:

Environmental Protection Agency
Department of Agriculture
Department of the Army, Corps of Engineers
Department of Commerce
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of Transportation

NEW UNITED STATES MINT
DENVER FEDERAL CENTER
DENVER, COLORADO

(X) Draft () Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space will be about 700,000 square feet. Proposed location is in the northwest corner of the Denver Federal Center. The State of Colorado, the City and County of Denver and Jefferson County would be affected by this proposed action. The proposed action would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should have a favorable effect on the aesthetics of the general area and provide an appropriate and beneficial land use of the proposed site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the area, and (2) the various short-term impacts of the construction period.

4. Major Alternatives Considered:

a. Continuation of the operation of the present Denver Mint without constructing a new facility.

b. Construction of a new mint at some other location.

5. Comments Requested From:

Environmental Protection Agency
Department of Agriculture
Department of the Army, Corps of Engineers
Department of Commerce
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of Transportation

5. Comments Requested From(Cont'd.):

Department of the Interior
Advisory Council on Historic Preservation
General Services Administration
Missouri River Basins Commission
Office of Economic Opportunity
State of Colorado Division of Commerce and Development
State of Colorado Department of Health
State of Colorado Department of Highways
State of Colorado Division of Wildlife
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
Urban Drainage and Flood Control District
City and County of Denver
Colorado Water Conservation Board
Board of Water Commissioners, City and County of Denver
City of Lakewood
Jefferson County
Rocky Mountain Center on Environment
Colorado Federation of Women's Clubs
Thorne Ecological Institute

6. Draft statement made available to the Council on Environmental Quality and the public on

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Appendix A - Map of Site Area

Appendices B, C & D - Aerial Photographs of Site Area

ENVIRONMENTAL IMPACT STATEMENT
DENVER FEDERAL CENTER
DENVER, COLORADO

INDEX

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Appendix A - Map of Site Area

Appendices B, C & D - Aerial Photographs of Site Area

ENVIRONMENTAL IMPACT STATEMENT
DENVER FEDERAL CENTER
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be twelve billion coins per year. More recent studies and projections indicate that the total demand by 1980 may be as high as 18 billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. The present Denver Mint has a capacity of 4.0 billion coins per year. Building space and outside areas in the present United States Mint institutions are saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The proposed new mint will have the mission of producing domestic coins ranging in denomination from 1¢ to \$1, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint will perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

(a) Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

(c) Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility three shifts per day, five days per week, 240 days per year. The new mint will be designed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (a) A site consisting of a minimum of 30 acres.
- (b) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which will provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, to be in harmony with and to enhance the area where it is located, and in appreciation of the important tourist aspects of the facility.

The proposed site for the new mint is in the northwest corner of the Denver Federal Center. (See attached map, Appendix A, and attached aerial photographs, Appendices B, C and D.) This proposed site supersedes the previously selected site along the west bank of the South Platte River, extending from about Eighteenth Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement, dated February 2, 1973. This site has been abandoned due to the aesthetic incompatibility of locating the new mint on a long, narrow strip of land immediately adjacent to the mainline North-South railroad trackage through Denver that the Burlington Northern Railroad plans to construct on the west bank of this reach of the South Platte River.

Authority for a mint at Denver is contained in 31 U. S. Code 261, which reads as follows:

"The different mints and assay offices shall be --

"First. The mint of the United States at Philadelphia.

"Second. The mint of the United States at Denver.

"Third. The United States assay office at New York.

"Fourth. The United States assay office at San Francisco."

1.2 The Existing Environmental Setting of the Proposed Site.

The proposed site consists of about 30 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. The proposed site is approximately eight miles west of the Denver Central Business District and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which will be removed to provide adequate space for the new mint.

A rail spur enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This is advantageous as regards the proposed mint, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing storage buildings which are to be removed. There are no historic resources nor historic places which would be affected by the proposed project.

To the north of the proposed site, and across the Sixth Avenue Freeway, are several recently constructed commercial buildings. To the west and across Union Street are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development. Within the Federal Center are numerous office and laboratory buildings housing various Federal Government activities and a large Federal Supply Warehouse located along Alameda Avenue.

Electric power, gas, water and sewer lines are available within

the Federal Center, but there are no utilities to be removed or relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well-drained and is not subject to flooding or a high water table. The substrata in the area is stiff to very stiff clay and a sandy clay. Bedrock should be encountered from 8 to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation to the Federal Center is now provided by the Denver Metro System. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned on Union Street between Alameda Avenue and Sixth Avenue. There are presently about 6,500 employees at the Center, thus the Mint's approximately 800 employees would be joining with an existing base for express public transportation. Housing of all classes is available in relatively close proximity to the Federal Center.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively favorable from a meteorological point of view, as it is several miles away from the current concentration of vehicular and industrial air pollutants in the central Denver area.

The addition of approximately 800 employees at the Denver Federal Center is consistent with the population growth and economic projections for the Denver regional area contained in the "OBERS" Projections prepared by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research Service of the Department of Agriculture.

Wildlife species in the area are negligible, consisting primarily of some birds, mice and rabbits. There would be sufficient open land in the Federal Center to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls For the Affected Area.

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, are compatible with the other Federal structures and activities presently located at the Federal Center and are consistent with long-range plans for development of this Federal installation. The new mint, while not planned as a monumental structure, will be tasteful and imposing, and the buildings and surrounding landscaped areas should complement the

Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local government sector. Also, there would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site, across Union Street, and to the north, across Sixth Avenue, are zoned E72-77 Commercial, under the zoning plan of the City of Lakewood. The Federal Center property acts as a buffer between areas to the south and to the east.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971, will be applied with respect to this National Register property.

It is believed on balancing the factors discussed above that locating the new mint at the proposed site would be a beneficial land use.

3. The Probable Impact of the Proposed Action on the Environment.

It has been concluded that construction of a new mint on the proposed Denver Federal Center site would have some significant effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows.

3.1 Transportation of Materials, Employees and Visitors Into and Out of the Project.

While overall road access to the site is excellent, there would be problems involved in adding to the traffic loads on the Sixth Avenue Freeway, on Alameda Avenue and on the other access roads in the Federal Center vicinity. The additional traffic load would consist of three distinct elements as follows: private automobiles and busses for mint employees; commercial vehicles handling shipments into and out of the facility; and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for mint employees' private automobiles would be approximately 100 cars inbound and 100 cars outbound during each shift change (presently 7:00 A.M., 3:00 P.M. and 11:00 P.M.), 50 cars inbound at about 8:00 A.M. and 50 cars outbound at about 4:30 P.M. Shift changes could be adjusted to avoid peak traffic periods in the site vicinity and the Denver metropolitan area in general, or alternatively, to provide for better

accommodation with public transportation schedules as they are developed and expanded. The mint employee traffic generally would be counter-directional to the mass of rush-hour movements, which are City-center oriented in the mornings and outward oriented in the afternoons. In addition, it is expected that due to energy problems and air pollution prevention programs, much greater reliance will be placed in the future on the use of public transportation systems. The Regional Transportation District's plans call for service to the Federal Center by both express busses and the rail based Personalized Rapid Transit system. The total Federal Center employee population, in excess of 6,000, serves as a good base to justify early development of these public systems, hopefully by 1980, when the new mint is planned for a fully operational status. The 15 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. Tourist traffic, averaging an estimated 200 cars and 5 busses daily, would naturally occur during off-peak traffic periods, as visitor hours would be from 9:00 A.M. to 3:00 P. M. daily. The mint traffic would terminate in its own parking areas, and thus, would not add to parking congestion either on or off the Federal Center property.

3.2 Potential Pollution - Air, Water, Solid Wastes, Noise and Visual.

Due to the nature of the industrial operations planned to be performed in the new mint, there are potential pollution problems associated with the construction and operation of the facility. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring advanced state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint be designed and constructed to comply with the letter and spirit of all local, state and federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint will be equipped with the most modern and efficient pollution measurement and prevention systems and equipment available, so that the plant will serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will perform to comply with the standards for air and water quality, in accordance with the provisions of Executive Order 11507, dated February 4, 1970.

Following is a listing of these potential problems and a discussion of planned systems and procedures for eliminating and reducing the potential pollution:

a. The new mint will generate some fumes from its metal melting and casting operations, from strip rolling and strip finishing and from blank cleaning and annealing. (Heating of the new buildings is a secondary consideration only, as sufficient capacity is available in the Federal Center central heating plant to serve the planned mint facilities.)

Comment: All air extruded from the plant will be cleaned by electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, state and national standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards.

b. Chemical effluent will be produced from the assay laboratory and from the blank cleaning operations. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses.

Comment: All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

c. There is a theoretical potential for thermal water pollution because of the requirements for cooling water for the melting and rolling operations.

Comment: Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers or ponds and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to minimize fog-producing conditions.

d. There will be solid wastes generated from numerous sources within the operations, with also the necessity during the construction period to remove (1) materials from demolished existing structures, (2) plant growth, and (3) perhaps some unsuitable materials.

Comment: Solid wastes will be processed within the plant, with major quantities of scrap metals being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to Environmental Protection Agency approved sanitary disposal areas. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction

contract specifications requiring the contractor to comply with local, state and federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control. Particular attention will be applied to surface drainage control during the construction phase to prevent erosion and to prevent any increase in turbidity in adjacent drainage channels.

e. There will be some noise and visual pollution, particularly during the construction phase, with a potential for noise and visual pollution after project completion, if adequate precautions are not adopted.

Comment: Noise from operation of construction equipment and pile driving is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the site vicinity. Operational noise and visual pollution potential at the new mint will be eliminated by designing buildings with internal and external noise level controls, and by construction of sufficient enclosed storage facilities so that metal and other supplies will not be stored in outside open areas, as in the case at the present Denver Mint. This would have the effect of removing a relatively minor noise and visual pollution source from the downtown Denver area.

f. There will be some air pollution in the site vicinity due to the increased automotive traffic previously discussed. This additional traffic is primarily a transfer of traffic, and its resultant effects, from the area of the present Denver Mint, a more downtown and congested location.

Comment: Elimination of the air pollution caused by the added automotive traffic is dependent upon reduction in the use of private automobiles primarily due to improvements and expansions in mass transit systems in the Denver area, and technical improvements to reduce or eliminate polluting emissions from automotive vehicles.

3.3 Energy Use and Conservation.

Energy will be required in the new mint to operate the coinage production machinery and equipment and to heat and ventilate the buildings. Coins are required for the orderly and efficient conduct of the economic activities of the American people. The new mint will be designed in full consideration of the present and projected energy availability situation and to rely upon the use of those forms of energy that appear most likely to be available for the long-term from the domestic resource base.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the project are expected to be relatively

minor due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area.

Land, water, sewerage, roads, telephones and other public services are already in existence to support the proposed project. The project should serve as an impetus for the development of better public transportation systems serving the Federal Center.

4. Alternatives to the Proposed Action.

These alternatives may be considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

Regarding the location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that Denver is the optimum location for the new mint for the following reasons:

- a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other coin production facilities, the Philadelphia Mint and the San Francisco Assay Office.
- b. Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.
- c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.
- d. Electricity, gas and water are generally available at favorable rates in comparison to other possible locations.
- e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in the Denver area has

been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the site located in the northwest corner of the Denver Federal Center has been selected tentatively for the following reasons:

- a. The site is excellent from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, absence of flood potential and adequate space for future expansion.) for the proposed new mint.
- b. The site has good aesthetic potential to provide a distinctive, dignified setting for the mint.
- c. The site can be obtained without cost to the Federal Government and would avoid placing additional land in the public domain.
- d. The mint operation would be consistent with other activities at the Federal Center and would tend to consolidate Federal requirements for utilities, transportation and other services.

Other locations in the Denver area were considered and have been eliminated from consideration at this time because of undesirable factors in comparison to the tentatively selected Federal Center site. In general, a site near the Denver City center would have the advantage of requiring less vehicle miles and a resultant lower quantity of automotive pollutants than an outlying location. However, because of meteorological conditions and existing sources of pollutants, an equal volume of pollutants in the downtown area would cause a greater degradation of air quality than that same volume in an outlying area. Also, the outlying location would remove plant air emissions from the existing concentration of pollutants in the downtown area.

- a. South Platte River from about Eighteenth Avenue to Speer Boulevard

This location had been selected as the site for the new mint and was the subject of a previous Environmental Impact Statement, dated February 2, 1973. Plans of the Burlington Northern Railroad to construct the north-south mainline double-track railroad through Denver, along the west bank of the South Platte River, have made this site untenable. The railroad trackage and the consequent heavy train traffic would not provide an appropriate background environmental setting for the imposing structures and grounds which are being planned to reflect the importance and dignity of the United States Government coinage functions to be performed in the facility.

- b. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the Federal Center site.

c. University Boulevard at Valley Highway (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been made available by the City.

d. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

e. York Street between Fortieth Avenue and Forty-third Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate aesthetic environment for the mint.

f. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

g. Park Hill Golf Course.

The Park Hill site has much to recommend it, but it is not particularly suitable for the new mint because of its setting near a residential area. The additional traffic and industrial operations would degrade the area. Preserving this site as open space is desirable.

h. Nome Street between Thirty-seventh Avenue and Fortieth Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

i. Rocky Mountain Arsenal.

This site has no particular advantages relative to the Federal Center; it is not as well-served by existing and planned mass transit systems, and the uncertainties regarding nerve gas storage at the Arsenal makes it prudent to avoid adding to the population base at this installation.

5. Probable Adverse Environmental Effects Which Cannot be Avoided.

Adverse and unavoidable environmental impacts of the proposed project are: (1) the increase in automotive traffic which its operation will bring to the area, and (2) the various short-term impacts of the construction period and its traffic additions.

The increase in automotive traffic in the site area will be caused by the passenger car traffic of the 800 personnel who will work at the facility, by the daily average of 15 trucks making deliveries and pickups, and by busses and private cars bringing tourists to the mint. The automotive traffic will cause some additional air and noise pollution and traffic congestion, particularly on the West Sixth Avenue Freeway. The major portion of the added passenger traffic will be during nonpeak traffic periods, as the work shifts and tourist visitation periods at the mint will be regulated to avoid these traffic peaks. Also, truck traffic to and from the site will be controlled to minimize peak traffic period additions. The additions of automotive traffic in the area of the new mint will be counterbalanced by the elimination of about 50 percent of the same volume of automotive traffic in the area of the present Denver Mint at 320 West Colfax Avenue, a more downtown Denver location.

The major environmental impacts of the construction period will be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project will include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on the site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean, mechanized facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the area should occur, assuming existing controls for preservation of the environment during construction are exercised. Generally, the proposed facility should result in an enhancement of the area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

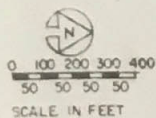
The proposed project is compatible with other activities and structures in the Federal Center and other developments in the vicinity . Adjacent land area is already zoned for office and commercial activities. No historical or archaeological sites or buildings will be affected, nor will there be any significant unalterable disruptions to the environment.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The prime probable adverse environmental effect of this proposed action is the increase in automotive traffic which its operation will cause. Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation.



▲ Indicate Building Entrances

APPENDIX A

UNION STREET

1300'

Proposed
HINT
SITE



DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68

NEW UNITED STATES MINT
DENVER, COLORADO

So. Platte

(2) Draft

Final Environmental Statement

Environmental Statement

Office of the Mint

Treasury Department, Washington, D. C.

CONSTRUCTION OF NEW UNITED STATES MINT - DENVER, COLORADO

Draft Environmental Impact Statement

Prepared by

Hildreth Frost, Jr.

and

Frank W. Rhea

Bureau of the Mint

Department of the Treasury

Denver Mint

320 West Colfax Avenue

Denver, Colorado 80204

June 23, 1972

Environmental Protection Agency

Department of Agriculture

Soil Conservation Service

Forest Service

U. S. Department of the Treasury

Bureau of the Mint

Main Treasury Building

Washington, D. C. 20220

Department of Commerce

Colorado State Planning

Department of Defense

Department of Health, Education and Welfare

Department of Housing and Urban Development

Department of the Interior

Bureau of Mines

Bureau of Reclamation

Bureau of Sport Fisheries and Wildlife

Geological Survey

National Park Service

NEW UNITED STATES MINT
DENVER, COLORADO

(X) Draft

() Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.

1. Name of Action: (X) Administrative () Legislative
2. Description of Action: Construction of a combination of high-bay one story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space will be about 700,000 square feet. Proposed location is in Denver along the South Platte River from about Eighteenth Avenue to Speer Boulevard.
3. a. Environmental Impacts: The proposed facility should have a favorable effect on the aesthetics of the site, assure required production of high quality coins for the United States and provide appropriate, optimum land use of the proposed site.

b. Adverse Environmental Impacts: Adverse environmental impacts of the project are (1) the increase in automotive traffic resulting from the operation of the new facility, (2) the requirement to relocate four commercial enterprises and about twenty families, and (3) the various short-term impacts during the construction period.
4. Alternatives: Alternatives considered include:
 - a. Continuation of the present operation with no construction.
 - b. Construction of a new mint at some other location.
5. Comments Requested From:

Environmental Protection Agency
Department of Agriculture
Soil Conservation Service
Forest Service
Department of Commerce, Economic Development Administration
Colorado State Planning Office (State Clearing House)
Department of Defense, Army Corps of Engineers
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of the Interior
Bureau of Mines
Bureau of Reclamation
Bureau of Sport Fisheries and Wildlife
Geological Survey
National Park Service

5. Comments Requested From (Cont'd.):

Department of Transportation, Federal Highway Administration
Office of Economic Opportunity
Denver Regional Council of Governments (Regional Clearing House)
City of Denver Planning Director
Colorado Water Conservation Board
Thorne Ecological Foundation
Rocky Mountain Center on Environment
State of Colorado Division of Game, Fish and Parks
Denver Regional Transportation Authority
Colorado State Department of Public Health
Colorado Department of Highways
Denver Board of Water Commissioners
Colorado Citizens Coordinating Committee - Environmental Planning
South Platte Area Redevelopment Council
Colorado Federation of Women's Clubs
Colorado State Division of Commerce and Development
Denver Metropolitan Sanitary District Number 1

6. Draft statement made available to Council on Environmental Quality and the public on

The proposed new mint will have the mission of producing domestic coins ranging in denomination from 1¢ to 1¢, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint will perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage, and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including the accommodation of tourists.

The following specific functions/space requirements are planned for inclusion in the new mint:

(a) Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

(c) Administrative Support Functions

Mint Staff (Superintendent and Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference room and training areas, vehicle parking (employees and visitors), and other

DRAFT ENVIRONMENTAL IMPACT STATEMENT

NEW DENVER MINT DENVER, COLORADO

1. Project Description

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be twelve billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 7.7 billion coins per year by 1980. The present Denver Mint has a capacity of 4.0 billion coins per year. Building space and outside areas in the present United States Mint institutions are saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The proposed new mint will have the mission of producing domestic coins ranging in denomination from 1¢ to 1\$, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint will perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage, and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including the accommodation of tourists.

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(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

(c) Administrative Support Functions

Mint Staff (Superintendent and Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other

miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment in December 1977. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1979.

The new mint is being planned for year 1980 production capacity of 7.7 billion domestic coins per year and 35 million proof coins and medals per year. Further, it is planned to operate the facility two shifts per day, five days per week, 240 days per year. As an exception, the melting and casting of metal and metal alloys is planned for three shifts per day, five days per week, 240 days per year. The new mint will be designed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

(a) A site consisting of a minimum of 25 acres.

(b) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which will provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, to be in harmony with and to enhance the area where it is located, and in appreciation of the important tourist aspects of the facility.

The proposed site for the new mint is in Denver, along the west bank of the South Platte River between the South Platte and the Valley Highway (I-25), and extending from about Eighteenth Avenue to Speer Boulevard. (See attached map, Appendix A).

Authority for a mint in the City and County of Denver is contained in 31 U. S. Code 261 (Supplemental 1970), which reads as follows:

"The different mints and assay offices shall be --

"First. The mint of the United States at Philadelphia.

"Second. The mint of the United States at Denver.

"Third. The United States Assay Office at New York.

"Fourth. The United States Assay Office at San Francisco."

As amended July 11, 1962, Public Law 87-534, S1, 76 Stat. 155."

The proposed site consists of about 30 acres in a generally rectilinear

configuration. The entire site is bordered by the official Platte River alignment on the east and Highway I-25 (Valley Highway) on the west. The northern section is laid out in streets and blocks along Water Street. This is a small portion of very old Denver which is occupied presently by four partial blocks of housing in relatively poor condition and four structures that have been renovated to house businesses. The southern section was originally used as a railroad marshaling yard. The City of Denver is using this southern 14 acres for road equipment and voting machine storage.

A rail spur runs along the bank of the river for the entire length of the property. This spur serves customers, both north and south of the site. This more or less permanent trackage tends to make the land industrial rather than residential.

Access to the site is available from the Valley Highway at the south at about Nineteenth Avenue and in the center at Twenty-third Avenue onto Water Street, which passes through the northern section and continues on north. There is access from the Speer-Valley Highway at the north end by going south on Water Street. The Valley Highway may be crossed from the west by an underpass at Seventeenth Avenue, a bridge over the Valley Highway at Twenty-third Avenue, and at Speer-Valley interchange.

There is no appreciable landscaping in the area. The Valley Highway right of way has been recently landscaped, but the trees are still small. There are several old trees scattered about the northern portion of the area. There are some vacant lots and open fields in the area, and existing lawns are maintained at minimum levels.

To the north of the proposed site, beyond the Speer Boulevard viaduct, is the Forney Museum, housed in an old, former gas generation plant. This is of historic significance and will probably be permanent. There are industrial plants to the south, isolated from the proposed area by the Valley Highway. Immediately to the west and across the Valley Highway is the Denver Bears Stadium. North of the stadium is a new high-rise Holiday Inn. North of this in the vicinity of the Speer-Valley interchange is a new, large multi-storied combination residential and commercial building.

The area across the river and east of the site is a rail yard. This very unsightly area is proposed as a park by the City of Denver in their South Platte improvement plan.

Power, gas, water, and drainage lines cross the site feeding other areas. They may be useful to the project, but they do not help the existing environmental setting.

The primary changes envisioned in the immediate vicinity of the site are contained in the Denver Planning Commission's proposed South Platte Development Project. This project includes an extension of the Auraria Educational Complex to the east, a Platte River Park between Auraria and the river (presently rail yards), and a housing complex for the 1976 Winter Olympics. West of the site, across the Valley Highway, the project includes plans for completion of a sports complex, including enlargement of the present stadium and construction of a large indoor arena.

The proposed mint site is in the center of a large area which is in the process of being upgraded.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River - Cherry Creek Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively low, as it is immediately adjacent to the Platte River. This low level provides some protection from winds; however, whatever smog collects in Denver tends to settle along the river.

The soil conditions at the surface of the projected site are variable. Bed rock (Pierre shale) exists at the river bottom level, some 10 to 25 feet deep. The natural material covering the bed rock consists of combined gravel and clay-like material washed down to the stream plain from the higher ground to the west. Some of the area has been filled; some of it was dump area. The whole site slopes to the east and drains into the river. There are no swamps or marshlands.

There is no known wildlife of significance in the area.

2. Probable Environmental Impact of the Proposed Action

It has been concluded that construction of a new mint on the proposed South Platte River site would have some significant effects on the environment - both beneficial and adverse. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the foreseeable probable effects follows.

2.1 Physical relationships to the immediate area and to the City and County of Denver.

The location is in harmony with the South Platte Development Program, as proposed by the Denver Planning Commission. The mint buildings proposed for the project would replace the city voting machine and road construction equipment storage facilities on the southern portion of the site, and the approximately thirty residences and four businesses on the northern portion of the site. The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver. The new mint, while not planned as a monumental structure, will be tasteful and imposing, and the buildings and landscaped areas should complement the proposed Platte River Park and the Auraria complex to the east, the stadium-arena, motel and other commercial developments on the higher ground to the west, and the industrial developments along the north-south axis of the Platte River.

The site is presently zoned "BA-2, Motels" (southern portion) and "I-1, Medium Industrial" (northern portion) under the zoning plan of the City and County of Denver. From an environmental standpoint, the suitability of the site for residential purposes is considered to be poor, primarily because of the heavy automobile traffic in the vicinity, particularly on the Valley Highway. This heavy traffic also has a degrading affect with respect to use of the area as a park. The more protected area of about the same size, directly east of the site and across the Platte River, has been designated as a public park in the Denver Planning Commission Program.

The proposed central location of the new mint would favor the utilization of existing medium and low-cost housing and additional such housing that is in the development stage.

Use of the South Platte site would require considerable demolition of existing structures and the relocation of approximately twenty families and four commercial enterprises to other areas. The City and County of Denver plans to acquire the private property in the area for later transfer to the Federal Government, along with the real estate already owned by the city. In relocating the families and businesses from the area, the city would be required to apply the State of Colorado Relocation Assistance Act of 1971, which provides for fair and just compensation to concerned parties. However, even though these parties are compensated financially, the relocations would cause considerable inconvenience and disruptions of the activities and interests of the people involved.

There are no structures of significant historical importance on the site.

It is believed that locating the new Denver Mint at the proposed site would be a beneficial land use in consideration of the factors discussed above.

2.3 Flood plain aspects of the proposed site.

2.2 Transportation of materials, employees, and visitors into and out of the project.

While overall access to the site is excellent, there would be problems involved in adding to the traffic load on the Valley Highway (I-25) and the other access roads in the vicinity. The additional traffic load would consist of three distinct elements as follows: private automobiles of mint employees; commercial vehicles handling shipments into and out of the facility; and tourists' private automobiles and busses. Traffic loads for mint employees' private automobiles will be approximately 175 cars inbound for the start of the morning shift, 100 cars inbound at about 8:00 A.M., 175 cars in and 175 cars out during the mid-afternoon shift change, 100 cars out at about 4:30 P.M., and 175 cars outbound at the end of the second shift (11:00 P.M.). The shift changes can and will be adjusted to avoid peak traffic periods in the site vicinity. The 15 daily average commercial vehicle trips in and out of the facility will be scheduled to the maximum extent feasible to avoid rush hour traffic. Tourist traffic averaging 300 cars and 5 busses daily will naturally occur during nonpeak traffic periods, as visitor hours will be from 9:00 A.M. to 3 P.M. daily. All of these additional vehicular traffic loads are relatively negligible when measured against the 105,800 vehicles which were using the Valley Highway in the site vicinity on an average weekday in 1971. The mint traffic will terminate in its own parking areas and not add to parking congestion in the vicinity.

The plans and proposals under consideration at this time for additional roads and transportation systems in the area will require that coordination and mutual resolution be accomplished during the specific design of these new transit facilities and the design of the access points and road connections to the proposed new mint. These are matters of detail which can be resolved by the Bureau of the Mint and the General Services Administration, the Denver Planning Commission, the City of Denver Engineer's Office, the Colorado State Department of Highways, and the Denver Regional Transportation

Authority. Transportation matters which will require detailed coordination during the design process are:

- a. The widening of Valley Highway to eight lanes in lieu of the present six lanes.
- b. The location of a frontage road parallel to the Valley Highway.
- c. The location of the proposed Market Street throughway and its interchange with the Valley Highway at the south end of the projected mint site.
- d. The location of the proposed mass transit "People Mover" connecting downtown Denver and the Bears Stadium - new arena complex, including the construction of a station in the vicinity of the new mint.
- e. The rerouting of Water Street around the western border of the site.
- f. The reconstruction of the interchange at the eastern end of the Twenty-third Avenue bridge to accommodate the exit and entrance ramps to Valley Highway, Water Street, and an entrance to the proposed mint site.

2.3 Flood plain aspects of the proposed site.

A detailed review of the flood plain implications of the proposed South Platte River site for the new mint has been completed by the Treasury Department. The following are the actions taken in this review and the conclusions resulting therefrom:

a. Letters from the Omaha District Corps of Engineers to Mr. Gregory Cavanagh, Regional Director, Public Building Services, Region 8, General Services Administration, dated 16 July 1971 and 23 July 1971, were analyzed in detail. These letters, and particularly the 23 July 1971 letter, confirmed that the 1965 flood approximated a 100-year flood and that during this flood the water reached elevation 5,190 adjacent to the center of the proposed site. These letters also state that, with the Chatfield Dam in operation, a 100-year flood would be confined within the river's banks and would reach elevation 5,182, and a standard project flood, as defined by the Corps of Engineers, would reach elevation 5,189, both elevations at the approximate center of the proposed site.

b. A call was made to Mr. R. G. Burnett, Chief, Engineering Division, Omaha District, Corps of Engineers, on 11 April 1972. Mr. Burnett confirmed that the Chatfield Dam, now under construction, is scheduled for closure in late summer 1973, and that the Mt. Carbon Dam on Bear Creek is now under design, with funds available for acquisition of land required for this project. Mr. Burnett said he would have his flood plain expert review the specifics of this particular site. In response to a specific question, Mr. Burnett provided the following Corps of Engineers' definition of a standard project flood:

"The standard project flood is representative of the critical concentration of runoff from the most severe combination of precipitation and snow melt, if pertinent, that is reasonably characteristic of the drainage basin involved."

Mr. Burnett stated further that the Corps does not associate a specific frequency with a standard project flood, but that such a flood is representative of the largest flood reasonably expected to occur and would be exceeded only on rare occasions. (Thus, the expected frequency of occurrence is much less than once in a hundred years. A standard project flood is more in the order of a 250-500 year flood.)

c. On 12 April, Mr. Norm Gau, Chief of Flood Plain Management, Omaha District, Corps of Engineers, provided further information relative to the proposed site. Mr. Gau made reference specifically to a flood plain information study that the Corps of Engineers had done on the South Platte River and stated that a copy of this study was available in the office of the Colorado Water Conservation Board in Denver. Mr. Gau also stated that this flood plain study provided the up-to-date information with respect to the proposed Denver Mint site. Mr. Gau reiterated the information provided the previous day by Mr. Burnett and added that the Mt. Carbon Dam affect on reduction of flood water elevations at the proposed site would be on the order of one foot. Mr. Gau stated that the Chatfield Dam is the prime contributor to flood reductions in this particular reach of the South Platte and, thus, any uncertainties with respect to completion of Mt. Carbon Dam are not material.

d. The Corps of Engineers' flood plain study was reviewed with Mr. Stan Miller, Colorado Water Conservation Board. The official title of this study prepared by the Omaha District of the Corps of Engineers is as follows: "Flood Plain Information Study, South Platte River Basin, Colorado, Denver Metropolitan Region, Updated August 1968." The study contains a general statement that it reflects reduced discharges resulting from the operation of the Chatfield and Mt. Carbon Dams. The study also has the following notes on the cover page:

(1) The 1965 flood has been included in the updated hydrologic analysis and has increased the basic discharges for a given flood frequency.

(2) An intermediate regional flood is a flood having a one percent probability, or an average frequency of once in 100 years.

The following surface water elevations were extracted from the graphs and maps included in the subject Flood Plain Study:

	<u>Elevations</u>	
	<u>Standard Project Flood</u>	<u>Intermediate Regional Flood</u>
Drop Structure (vicinity of the upstream end of the proposed site)	5,193	5,187
7th Street bridge (near site center)	5,189.5	5,182
Speer Blvd. (downstream end of site)	5,185	5,178

e. Further analysis of this matter revealed the following:

(1) The 100-year flood, with the Chatfield Dam in operation, would

be confined within the banks of the South Platte River at the site. In effect, this situation means that the site as is has a flood damage protection factor of 99 percent.

(2) Similarly, with the Chatfield Dam in operation, during a standard project flood there would be flooding of a small portion of the site as it exists, immediately adjacent to the river. However, due to the necessity to accomplish site grading to accommodate the proposed large buildings involved and due to the nature of existing soils, there will be a requirement to provide select fill material under any buildings or structures located near the river. This fill material will be planned for a finish elevation at least two feet above the predicted water elevations during a standard project flood. This will provide a flood damage protection factor in excess of 99.5 percent.

(3) In addition, during the design of the new Denver Mint, the possibility of floodproofing the lower portions of the buildings will be considered and analyzed. If the buildings can be floodproofed at reasonable cost, as is anticipated, this option will be selected, resulting in a flood damage prevention factor of 99.9+ percent.

(4) The proposed site would be used essentially as it exists with respect to the flow of the South Platte River, except for the fill planned for placement as discussed in paragraph (2) above. There would be no construction of buildings or other structures which would change the hydraulic capacities of the channel of the South Platte, either during flood periods or normal runoff. The fill which may be required for the proposed construction would reduce flood volume storage by approximately 40,000 cubic yards, an insignificant amount considering the total volume of a South Platte flood.

f. With respect to subsurface water at the site, no unusual problems are anticipated. The ground water table varies proportionately with the water level in the nearby South Platte River. However, all planning to date is based on slab-on-grade construction with the only foreseen requirement for basement or trench areas those necessary to provide space for piping and drains to recirculate process liquids and to discharge effluent into the South Platte River. These basement areas can be protected from seepage by proper treatment of basement walls and by installation of sump pumps.

g. In summary, the conclusion is that the new Denver Mint can be constructed on the South Platte River site with an extremely low flood risk factor and with no unusual costs incident to constructing in a potential flood plain.

2.4 Potential pollution - air, water, solid wastes, noise and visual.

Due to the nature of the industrial operations planned to be performed in the new mint, there are potential pollution problems associated with the construction and operation of the facility. Following is a listing of these foreseeable potential problems:

a. The new mint will generate some obnoxious fumes from its metal melting operations and from its steam plant, if steam cannot be purchased from the existing Zuni Plant of the Public Service Company of Colorado.

b. Chemical effluent will be produced from the assay laboratory, the blank cleaning operations and from the heating plant.

c. Oil will be collected from the ingot rolling mill, from the strip mills, and from the punch and coining presses.

d. There will be solid wastes generated from numerous sources within the operations, with also the necessity during the construction period to remove (1) materials from demolished existing structures, (2) trees and other plant growth, and (3) perhaps some unsuitable surface materials.

e. There will be a potential for thermal water pollution because of the requirements for cooling water for the furnace and rolling operations.

f. There will be some noise and visual pollution, particularly during the construction phase, with a potential for noise and visual pollution after project completion, if adequate precautions are not adopted.

g. There will be some air pollution in the site vicinity due to the increased automotive traffic previously discussed. This additional traffic is primarily a transfer of traffic and its resultant effects from the area of the present Denver Mint, a more downtown and congested location.

h. During the construction period, the potential exists for erosion and silting and for dust resulting from site grading and haulage to and from the area.

All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring advanced state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint be designed and constructed to comply with the letter and spirit of all local, state and federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint will be equipped with the most modern and efficient pollution prevention and control systems and equipment available, so that the plant will serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will perform to comply with the standards for air and water quality, in accordance with the provisions of Executive Order 11507, dated February 4, 1970.

Planned systems and procedures for eliminating or reducing the potential pollution problems are:

a. All extruded air from the plant will be cleaned by electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment will be designed so that extruded air meets all local and national standards for air quality.

b. All process water and other liquids will be collected in the plant,

passed through settling tanks, oil separators, filters and chemical neutralizing basins, before discharge with the normal sanitary sewage into the existing sewers passing through the proposed site.

(1) c. Process cooling water will be recirculated within the plant. It will be cooled in cooling towers and reused. Particular attention will be applied in the design of the cooling towers to avoid fog-producing conditions.

d. Solid wastes will be processed within the plant, with major quantities of scrap metals being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to the city dump.

e. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, state and federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control. Noise from operation of construction equipment and pile driving is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic on the Valley Highway.

f. Operational noise and visual pollution potential at the new mint will be eliminated by designing buildings with internal and external noise level controls and by the construction of sufficient enclosed storage facilities so that metal and other supplies will not be stored in outside open areas, as in the case at the present Denver Mint. This would have the effect of removing a relatively minor noise and visual pollution source from the downtown Denver area.

g. Elimination of the air pollution caused by the added automotive traffic is dependent upon improvements and expansions in mass transit systems in the Denver area, and technical improvements to reduce or eliminate polluting emissions from automobiles.

2.5 Relocations of utilities.

Electric power, gas, water, sanitary sewer and storm drainage lines cross the site, feeding or servicing other areas. These facilities are planned for utilization in providing utilities services to the new mint. These lines, a 115 KV power line, a twelve-inch water line, a sixteen-inch gas line, a sanitary sewer and four storm sewers, will require relocation. A proposed new 72-inch sanitary sewer being designed by Denver Metropolitan Sanitary District Number One will have to be located through the site in such manner as to avoid mutual interference of the sewer and mint functions. Rerouting of the 115 KV power line and placing it underground will improve the aesthetics of the area. The other relocations will not change the environment. They will have to be accomplished without interrupting service. Runoff from the site will be drained by swales, culverts and storm drains to discharge into the South Platte River. All improved areas of the completed facility will be landscaped with trees, shrubbery and ground cover to provide acceptable control of erosion and silting.

3. Probable Adverse Environmental Effects Which Cannot be Avoided Should the Project be Implemented.

Adverse and unavoidable environmental impacts of the proposed project are (1) the increase in automotive traffic which its operations will bring to the area, (2) the relocation of people and commercial enterprises, and (3) the various short-term impacts of the construction period and its traffic additions.

The increase in automotive traffic in the site area will be caused by the passenger car traffic of the 850 personnel who will work at the facility, by the daily average of 15 trucks making deliveries and pickups, and by busses and private cars bringing tourists to the mint. The automotive traffic will cause some additional air and noise pollution and traffic congestion, particularly on U. S. Interstate Highway I-25. These effects are negligible, however, when measured against the 100,000 plus vehicles presently using I-25 daily. The major portion of the added passenger traffic will be during nonpeak traffic periods, as the work shifts and tourist visitation periods at the mint will be regulated to avoid these traffic peaks. Also, truck traffic to and from the site will be controlled to minimize peak traffic period additions. The additions of automotive traffic in the area of the new mint will be counterbalanced by the elimination of about 50 percent of the same volume of automotive traffic in the area of the present Denver Mint at 320 West Colfax Avenue, a more downtown Denver location.

It will be necessary to relocate four commercial enterprises and approximately twenty families from the area. This relocation is unavoidable. The persons and businesses involved will be compensated fairly and justly in accordance with the State of Colorado Relocation Assistance Act of 1971.

The major environmental impacts of the construction period will be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project will include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

4. Alternatives to the Proposed Action

These alternatives may be considered:

a. Continuation of the present operation with no construction.

b. Construction of a new mint at some other location.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

Regarding the location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that Denver is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other major coin production facility, the Philadelphia Mint.

b. Denver is an excellent transportation center, with good trucking facilities available for shipping coins to the West Coast, as well as to the Mid-West and points East as required. Transportation rates to Eastern points are favorable, as many trucks delivering to the Denver area return East empty.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are available at favorable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in Denver has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (25 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the site located on the west bank of the South Platte River between the Valley Highway (I-25) and the river, and extending from Eighteenth Avenue to the Speer Boulevard interchange, has been selected tentatively for the following reasons:

a. The site is adequate from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, etc.) for the proposed new mint.

b. The mint at this location would be in harmony with the South Platte Development Program as proposed by the Denver Planning Commission. The construction would complement the activities being undertaken through Urban Renewal in the Auraria and Skyline projects.

c. The site has considerable aesthetic potential to provide a distinctive, dignified setting for the mint.

d. The central location is generally favorable regarding availability of low and medium-cost housing and accessibility by employees using public transportation. (The latter should improve with time).

e. The relatively downtown Denver location is advantageous for attracting tourists, an important consideration for the Bureau of the Mint and for the City of Denver.

Other locations in the Denver area were considered and have been eliminated from consideration at this time because of undesirable factors in comparison to the tentatively selected South Platte River site. The sites considered and the prime reasons for elimination are:

a. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

Neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the Twenty-third Avenue South Platte site.

b. University Boulevard at Valley Highway (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been made available by the city.

c. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in re-locating existing improvements, and the Gates Rubber Company, currently using the area, is expanding its operations and is not interested in selling the property.

d. York Street between Fortieth Avenue and Forty-third Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate aesthetic environment for the mint. Also, the site has not been offered for sale, and it does not have any outstanding redeeming or offsetting advantages.

e. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, plus the many old multistory commercial warehouses in the area which probably will remain for a considerable period of time.

f. Park Hill Golf Course.

The Park Hill site has much to recommend it, but it is not particularly suitable for the new mint because of its setting near a residential area. The additional traffic and light industrial operations would degrade the area. Preserving this site as open space is desirable.

g. Nome Street between Thirty-seventh Avenue and Fortieth Avenue (Union Pacific Industrial Park).

This site is ideal from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists and in providing a distinctive, aesthetic setting for a new mint.

h. Sites outside the City of Denver.

These were considered, particularly locations at Rocky Mountain Arsenal and the Denver Federal Center, but they were eliminated because they would not have the advantage of assisting in the Urban Redevelopment of Denver, they have serious deficiencies regarding tourist access, and the peripheral locations would pose problems in access for employees and commercial trucks with a resultant net increase in automotive traffic.

5. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enforcement of Long-Term Productivity.

Cumulative and long-term effects of the proposed project might be assessed in terms of land use at the site and coining operations for the people of the United States. As stated earlier, the long-term suitability of the site for uses other than industrial operations is very poor. The highways and roads on three sides produce a traffic and noise environment that is not compatible with residential or park-type uses.

A new mint on the site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean, mechanized facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the area should occur, assuming existing controls for preservation of the environment during construction are exercised. Generally, the proposed facility should result in an enhancement of the area in conformance with adjacent developments and planned land uses.

6. Any Irreversible and Irretrievable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented.

Significant irreversible or irretrievable commitments of resources are not anticipated. The proposed project is compatible with other developments in the vicinity. The land area is already committed to use for medium industrial activities. The change to larger buildings on the site will result in more open space. The landscaping proposed will significantly increase the amount of green space on the site and should provide a favorable environment for birds and wildlife. No historical or archaeological sites will be destroyed, nor will there be unalterable disruptions to the environment.

Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

7. Coordination With Others.

(To be completed upon receipt of comments from agencies).

PROPOSED SITE
NEW DENVER MINT
APPENDIX A
ENVIRONMENTAL STATEMENT





*App B, Environmental Impact Statement
New Denver Mint*

Master Draft & Final Environmental Impact Statement File

South Platte Site Final File

CONSTRUCTION OF NEW UNITED STATES MINT - DENVER, COLORADO

Final Environmental Impact Statement

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

February 2, 1973

Prepared for

U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220

NEW UNITED STATES MINT
DENVER, COLORADO

() Draft

(X) Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.

1. Name of Action: (X) Administrative () Legislative

2. Description of Action: Construction of a combination of high-bay one story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space will be about 700,000 square feet. Proposed location is in Denver along the South Platte River from about Eighteenth Avenue to Speer Boulevard. The proposed action would assure the required production of high quality coins for the United States.

3. Environmental Impacts

a. Favorable Environmental Impacts: The proposed facility should have a favorable effect on the aesthetics of the site and provide appropriate land use of the proposed site.

b. Adverse Environmental Impacts: Adverse environmental impacts of the project are (1) the increase in automotive traffic in the site vicinity resulting from the operation of the new facility, (2) the requirement to relocate four commercial enterprises and about twenty families, and (3) the various normal short-term impacts during the construction period. In addition, the proposed site is in a flood plain, which would have serious implications if the Chatfield Dam, upstream of the site on the South Platte River, were not completed as scheduled. Potential flooding will require special attention in the detailed design of the facility.

4. Alternatives: Alternatives considered include:

a. Continuation of the operation of the present Denver Mint without constructing a new facility.

b. Construction of a new mint at some other location.

5. Written comments on the Draft Statement for this proposed project have been received from the following agencies:

Environmental Protection Agency
Department of Agriculture
Soil Conservation Service
Forest Service
Department of Commerce
Department of Defense, Army Corps of Engineers

5. Written comments received from the following agencies (Cont'd.):

Department of Housing and Urban Development
Department of the Interior
Missouri Basin Region
Bureau of Mines
Geological Survey
Department of Transportation, Federal Highway Administration
Advisory Council on Historic Preservation
Office of Economic Opportunity
State of Colorado Division of Commerce and Development
State of Colorado Department of Health
State of Colorado Department of Highways
State of Colorado Division of Wildlife
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
Urban Drainage and Flood Control District
City and County of Denver
Board of Water Commissioners, City and County of Denver
Thorne Ecological Institute

6. Dates on which statements made available to Council on Environmental Quality and the public:

Draft Statement - August 9, 1972
Final Statement - February 2, 1973

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Appendix A - Map of Site Area

Appendix B - Aerial Photograph of Site Area

Appendix C - Comments Received on Draft Statement

ENVIRONMENTAL IMPACT STATEMENT
NEW DENVER MINT
DENVER, COLORADO

1. Description of the Proposed Action

1.1 Project Description

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be twelve billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 7.7 billion coins per year by 1980. The present Denver Mint has a capacity of 4.0 billion coins per year. Building space and outside areas in the present United States Mint institutions are saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The proposed new mint will have the mission of producing domestic coins ranging in denomination from 1¢ to 1\$, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint will perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

(a) Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, up-setting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

(c) Administrative Support Functions

Mint Staff (Superintendent and Deputy Superintendent,

Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment in December 1977. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1979.

The new mint is being planned for year 1980 production capacity of 7.7 billion domestic coins per year and 35 million proof coins and medals per year, on the basis of operating the facility two shifts per day, five days per week, 240 days per year, except that the melting and casting of metal and metal alloys is planned for three shifts per day. The new mint will be designed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (a) A site consisting of a minimum of 25 acres.
- (b) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which will provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, to be in harmony with and to enhance the area where it is located, and in appreciation of the important tourist aspects of the facility.

The proposed site for the new mint is in Denver, along the west bank of the South Platte River between the South Platte and the Valley Highway (I-25), and extending from about Eighteenth Avenue to Speer Boulevard. (See attached map, Appendix A, and attached aerial photograph, Appendix B).

Authority for a mint at Denver is contained in 31 U. S. Code 261, which reads as follows:

"The different mints and assay offices shall be --

"First. The mint of the United States at Philadelphia.

"Second. The mint of the United States at Denver.

"Third. The United States assay office at New York.

"Fourth. The United States assay office at San Francisco."

1.2 The Existing Environmental Setting of the Proposed Site

The proposed site consists of about 30 acres bordered by the official Platte River alignment on the east and Highway I-25 (Valley Highway) on the west. The northern section is laid out in streets and blocks along Water Street. This is a small portion of very old Denver which is occupied presently by four partial blocks of housing in relatively poor condition and four structures that have been renovated to house businesses. The southern section was originally used as a railroad marshaling yard. The City of Denver is using this southern 14 acres for road equipment and voting machine storage.

A rail spur runs along the bank of the river for the entire length of the property. This spur serves customers, both north and south of the site. This more or less permanent trackage tends to make the land industrial rather than residential. This existing rail spur is advantageous, as regards the proposed mint, as it is desirable to have rail access to the mint for delivery and shipment of large quantities of metal, coin blanks and scrap.

Access to the site is available from the Valley Highway at the south at about Nineteenth Avenue and in the center at Twenty-third Avenue onto Water Street, which passes through the northern section and continues on north. There is access from the Speer-Valley Highway at the north end by going south on Water Street. The Valley Highway may be crossed from the west by an underpass at Seventeenth Avenue, a bridge over the Valley Highway at Twenty-third Avenue, and at Speer-Valley interchange.

There is no appreciable landscaping in the area. The Valley Highway right of way has been recently landscaped, but the trees are still small. There are several old trees scattered about the northern portion of the area. There are some vacant lots and open fields in the area, and existing lawns are maintained at minimum levels.

To the north of the proposed site, beyond the Speer Boulevard viaduct, is the Forney Museum, housed in a former gas generation plant. This is of historic significance and will probably be permanent. There are industrial plants to the south, isolated from the proposed area by the Valley Highway. Immediately to the west and across the Valley Highway is the Denver Mile High Stadium. North of the stadium is a new high-rise Holiday Inn. North of this in the vicinity of the Speer-Valley interchange is a new, large multistoried office building complex.

The area across the river and east of the site is a rail yard. This very unsightly area is proposed as a park by the City of Denver in their South Platte Development Project. *

* This document may be obtained from the City and County of Denver Planning Office, 1445 Cleveland Place, Denver, Colorado 80204. It, and other reports, letters, etc. referred to in this Environmental Statement, are available for inspection in the office of the Facilities Project Manager, Bureau of the Mint, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

Power, gas, water, and drainage lines cross the site feeding other areas. These facilities are discussed in detail in paragraph 2.5, Relocations of Utilities.

The primary changes envisioned in the immediate vicinity of the site are contained in the Denver Planning Office's proposed South Platte Development Project. This project includes an extension of the Auraria Educational Complex to the east and a Platte River Park between Auraria and the river (presently rail yards). West of the site, across the Valley Highway, the project includes plans for completion of a sports complex, including enlargement of the present stadium and construction of a large indoor arena. Thus, the proposed mint site is in the center of a large area which is in the process of being upgraded.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River - Cherry Creek Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively low, as it is immediately adjacent to the Platte River. This low level provides some protection from winds; however, whatever smog collects in Denver tends to settle along the river.

The soil conditions at the surface of the projected site are variable. Bed rock (Upper Dawson Formation) exists at the river bottom level, some 10 to 25 feet deep. The natural material covering the bed rock consists of combined gravel and clay-like material washed down to the stream plain from the higher ground to the west. Some of the area has been filled; some of it was dump area. The whole site slopes to the east and drains into the river. There are no swamps or marshlands.

Wildlife species in the area include muskrats, mink, skunks, raccoons, mice, feral house cats, song birds, doves, waterfowl and other migratory birds. Fish species include channel catfish and some other varieties.

2. Probable Environmental Impact of the Proposed Action

It has been concluded that construction of a new mint on the proposed South Platte River site would have some significant effects on the environment - both beneficial and adverse. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows.

2.1 Physical relationships to the immediate area and to the City and County of Denver

The location is in harmony with the South Platte Development Project, as proposed by the Denver Planning Office. The mint buildings proposed for the project would replace the city voting machine and road construction equipment storage facilities on the southern portion of the site, and the approximately thirty residences (some of which are presently vacant) and four businesses on the

northern portion of the site. The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver. The new mint, while not planned as a monumental structure, will be tasteful and imposing, and the buildings and landscaped areas should complement the proposed Platte River Park and the Auraria complex to the east, the stadium-arena, motel and other commercial developments on the higher ground to the west, and the industrial developments along the north-south axis of the Platte River.

The site is presently zoned "BA-2, Motels" (southern portion) and "I-1, Medium Industrial" (northern portion) under the zoning plan of the City and County of Denver. From an environmental standpoint, the suitability of the site for residential purposes is considered to be poor, primarily because of the heavy automobile traffic in the vicinity, particularly on the Valley Highway. This heavy traffic also has a degrading affect with respect to use of the area as a park. The more protected area of about the same size, directly east of the site and across the Platte River, has been designated as a public park in the Denver Planning Office Program.

The proposed location of the new mint is in the approximate center of the Metropolitan Denver area and also is in relatively close proximity to existing and planned low and moderate income housing in Denver. The proposed site is a short distance from the present Denver Mint on West Colfax Avenue, and relocation to this site would have little effect on the housing situation for present and potential mint employees.

Use of the South Platte site would require considerable demolition of existing structures and the relocation of approximately twenty families and four commercial enterprises to other areas. The City and County of Denver plans to acquire the private property in the area for later transfer to the Federal Government, along with the real estate already owned by the city. In acquiring the property and assembling of the site to be conveyed to the United States, the City and County of Denver would be required to undertake the obligations imposed by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) with regard to providing fair and reasonable relocation payments and assistance to eligible displaced persons. Specific plans for those families displaced by the project would be developed at a later date by the City and County of Denver working in conjunction with the Department of Housing and Urban Development and the Denver Urban Renewal Authority.

Even though the displaced parties are provided assistance and compensated financially, the relocations would cause considerable inconvenience and disruptions of the activities and interests of the people involved.

The proposed project would have little impact on historic

resources. The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property on, or in the vicinity of, the proposed site for the new mint is affected by the project. After review of the Draft Environmental Impact Statement for this project, the State Historical Society of Colorado provided the following comments:

"Dear Mr. Rhea:

As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,"

/s/ Stephen H. Hart
Stephen H. Hart
Colorado State Liaison Officer

The present Denver Mint, as Mr. Hart states in his letter, is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

It is believed on balancing the factors discussed above that locating the new Denver Mint at the proposed site would be a beneficial land use.

2.2 Transportation of materials, employees, and visitors into and out of the project

While overall access to the site is excellent, there would be problems involved in adding to the traffic load on the Valley Highway (I-25) and the other access roads in the vicinity. The additional traffic load would consist of three distinct elements as follows: private automobiles of mint employees; commercial vehicles handling shipments into and out of the facility; and tourists' private automobiles and busses. Traffic loads for mint employees' private automobiles would be approximately 175 cars inbound for the start of the morning shift (presently at 7:00 A.M.), 100 cars inbound at about 8:00 A.M., 175 cars in and 175 cars out during the mid-afternoon shift change (presently at 3:00 P.M.), 100 cars out at about 4:30 P.M., and 175 cars outbound at the end of the second shift (11:00 P.M.). The shift changes would be adjusted to avoid peak traffic periods in the site vicinity. The 15 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush hour traffic. Tourist traffic averaging 300 cars and 5 busses daily would naturally occur during nonpeak traffic periods, as visitor hours would be from 9:00 A.M. to 3:00 P.M. daily. All of this additional traffic would not use the Valley Highway, but there would be an increase in traffic on this heavily used corridor (105,800 vehicles in the site vicinity on an average weekday in 1971). The mint traffic would terminate in its own parking areas on site and thus would not add to parking congestion in the vicinity.

Several transportation proposals in the proposed site area are under planning development at this time by the Regional Transportation District, the Colorado Department of Highways and the Federal Highway Administration. These proposals and plans, and the planning for the new mint, will require that joint planning and thorough coordination among the agencies involved would have to be accomplished so as to assure consistency in planning and the least environmental impact. These are matters of detail which can be resolved by the agencies involved during the specific design of the new transit facilities and the detailed design of the new mint. Transportation matters which would require detailed coordination in the design phase are:

- a. The rerouting of Water Street around the western border of the site.
- b. The reconstruction of the interchange at the eastern end of the Twenty-third Avenue bridge to accommodate the exit and entrance ramps to Valley Highway, Water Street, and an entrance to the proposed mint site.
- c. The location of the proposed Market-Blake Parkway and its interchange with the Valley Highway at the south end of the projected mint site.
- d. The location of the proposed personalized rapid transit

(PRT) "People Mover", connecting downtown Denver and the Mile High Stadium - new arena complex, including the construction of a station in the vicinity of the new mint.

e. The location of a frontage road parallel to the Valley Highway from Colfax Avenue to the west Thirty-eighth Avenue interchange.

2.3 Flood plain aspects of the proposed site

A detailed review of the flood plain implications of the proposed South Platte River site for the new mint has been completed by the Treasury Department. The following are the actions taken in this review and the conclusions resulting therefrom:

a. Letters from the Omaha District Corps of Engineers to Mr. Gregory Cavanagh, Regional Director, Public Building Services, Region 8, General Services Administration, dated 16 July 1971 and 23 July 1971, were analyzed in detail. These letters, and particularly the 23 July 1971 letter, confirmed that the 1965 flood approximated a 100-year flood and that during this flood the water reached elevation 5,190 adjacent to the center of the proposed site. (The ground adjacent to the river at the center of the site is at approximate elevation 5,188. The topography of the site varies, of course, with elevations increasing in the upstream direction and away from the river. Thus, during the 1965 flood, before the start of construction of the Chatfield Dam, approximately 30 percent of the site was flooded, with water depths varying from 0 to 36 inches.) These letters also state that, with the Chatfield Dam in operation, a 100-year flood would be confined within the river's banks and would reach elevation 5,182, and a "standard project flood", as defined by the Corps of Engineers, would reach elevation 5,189, both elevations at the approximate center of the proposed site. (With the Chatfield Dam in operation, the 100-year flood would not inundate any portion of the proposed site. The standard project flood would inundate approximately 25 percent of the site, without any corrective measures. See paragraph 2.3e(2) below for a discussion of planned protective measures).

b. A call was made to Mr. R. G. Burnett, Chief, Engineering Division, Omaha District, Corps of Engineers, on 11 April 1972. Mr. Burnett confirmed that the Chatfield Dam, now under construction, is scheduled for closure in late summer 1973, and that Mt. Carbon Dam on Bear Creek is now under design, with funds available for acquisition of land required for this project. Mr. Burnett said he would have his flood plain official, Mr. Gau, review the specifics of this particular site.

In response to a specific question, Mr. Burnett provided the following Corps of Engineers' definition of a standard project flood:

"The standard project flood is representative of the critical concentration of runoff from the most severe combination of precipitation and snow melt, if pertinent, that is reasonably characteristic of the drainage basin involved."

Mr. Burnett stated further that the Corps does not associate a specific frequency with a standard project flood, but that such a flood is representative of the largest flood reasonably expected to occur and would be exceeded only on rare occasions. (Thus, the expected frequency of occurrence is much less than once in a hundred years. A standard project flood is more in the order of a 250-500 year flood).

c. On 12 April, Mr. Gau, Chief of Flood Plain Management, Omaha District, Corps of Engineers, provided further information relative to the proposed site. Mr. Gau made reference specifically to a document entitled, "Flood Plain Information Study, South Platte River Basin, Colorado, Denver Metropolitan Region, Updated August 1968", that the Corps of Engineers had done on the South Platte River and stated that a copy of this study was available in the office of the Colorado Water Conservation Board in Denver. Mr. Gau also stated that this flood plain study provided the current information with respect to the proposed Denver Mint site. He reiterated the information provided the previous day by Mr. Burnett and added that the Mt. Carbon Dam effect on reduction of flood water elevations at the proposed site would be on the order of one foot. Mr. Gau stated that the Chatfield Dam is the prime contributor to flood reductions in this particular reach of the South Platte and thus any uncertainties with respect to completion of Mt. Carbon Dam are not material.

d. The Corps of Engineers' flood plain study referred to above was reviewed in the offices of the Colorado Water Conservation Board. The study contains a general statement that it reflects reduced discharges resulting from the operation of the Chatfield and Mt. Carbon Dams. The study also has the following notes on the cover page:

(1) The 1965 flood has been included in the updated hydrologic analysis and has increased the basic discharges for a given flood frequency.

(2) An intermediate regional flood is a flood having a one percent probability, or an average frequency of once in 100 years.

The following surface water elevations were extracted from the graphs and maps included in the subject Flood Plain Study:

	<u>Elevations</u>	
	<u>Standard Project Flood</u>	<u>Intermediate Regional Flood</u>
Drop Structure (vicinity of upstream end of proposed site)	5,193	5,187
7th Street bridge (near site center)	5,189.5	5,182
Speer Blvd.(downstream end of site)	5,185	5,178

e. Further analysis of this matter revealed the following:

(1) The 100-year flood, with the Chatfield Dam in operation, would be confined within the banks of the South Platte River at the site. In effect, this situation means that the site with existing elevations has a very high flood damage protection factor.

(2) Also, with the Chatfield Dam in operation, during a standard project flood there would be flooding of a small portion of the site as it exists, immediately adjacent to the river. Because of the configuration of the site and the large size of the buildings, the proposed mint structures would be located on the higher elevations away from the river. In accomplishing site grading, select fill material would be placed to produce finish elevations under the structures at least three feet above the predicted water elevations of a standard project flood. Further, it is planned to design and construct the new mint so that the lower portions of all structures up to three feet above ground elevations are floodproofed. These measures, in combination with the effect of the Chatfield Dam, would provide protection such that the possibility of flood damage is extremely remote.

(3) The proposed site would be used essentially as it exists with respect to the flow of the South Platte River, except for the fill planned for placement as discussed in paragraph (2) above. There would be no construction of buildings or other structures which would change the hydraulic capacities of the channel of the South Platte, either during flood periods or normal runoff. The fill which would be required for the proposed construction would reduce flood volume storage by approximately 40,000 cubic yards, an insignificant amount considering the total volume of a South Platte flood.

f. With respect to subsurface water at the site, no unusual problems are anticipated. The ground water table varies proportionately with the water level in the nearby South Platte River. However, all planning to date is based on slab-on-grade construction with the only foreseen requirement for basement or trench areas those necessary to provide space for sanitary sewers and for piping and drains to recirculate process liquids. These basement areas will require special protection from seasonally high water table conditions by proper treatment of basement walls and by installation of sump pumps.

g. In summary, the conclusion is that the new Denver Mint can be constructed on the South Platte River site with an extremely low flood risk factor and with reasonable costs incident to constructing in a potential flood plain.

2.4 Potential pollution from air, water, solid wastes, noise and visual

Due to the nature of the industrial operations planned to be performed in the new mint, there are potential pollution problems associated with the construction and operation of the facility. All of these potential problems will be analyzed in great detail during the

design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring advanced state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint be designed and constructed to comply with the letter and spirit of all local, state and federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint will be equipped with the most modern and efficient pollution measurement and prevention systems and equipment available, so that the plant will serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will perform to comply with the standards for air and water quality, in accordance with the provisions of Executive Order 11507, dated February 4, 1970.

Following is a listing of these potential problems and a discussion of planned systems and procedures for eliminating and reducing the potential pollution:

a. The new mint will generate some fumes from its metal melting and casting operations. If steam cannot be purchased from the existing Zuni Plant of the Public Service Company of Colorado, fumes would be generated by the mint heating plant.

Comment: All air extruded from the plant will be cleaned by electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, state and national standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards.

b. Chemical effluent will be produced from the assay laboratory, the blank cleaning operations and from the heating plant. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses.

Comment: All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. The treatment facility involved, plus sanitary sewage systems in the new mint, will be protected to preclude the possibility of contamination of the South Platte River through leakage or flooding. Discharges from the mint, if any, into either sanitary sewers or the South Platte River will comply with the Water Quality Standards of the Colorado Department of Health. Any discharges into the South Platte River will be monitored continuously.

c. There is a theoretical potential for thermal water pollution because of the requirements for cooling water for the melting and rolling operations.

Comment: Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of the cooling towers to avoid fog-producing conditions.

d. There will be solid wastes generated from numerous sources within the operations, with also the necessity during the construction period to remove (1) materials from demolished existing structures, (2) trees and other plant growth, and (3) perhaps some unsuitable materials.

Comment: Solid wastes will be processed within the plant, with major quantities of scrap metals being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to the city dump. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, state and federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control. Particular attention will be applied to surface drainage control during the construction phase to prevent erosion and to prevent any increase in turbidity in the South Platte River.

e. There will be some noise and visual pollution, particularly during the construction phase, with a potential for noise and visual pollution after project completion, if adequate precautions are not adopted.

Comment: Noise from operation of construction equipment and pile driving is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic on the Valley Highway. Operational noise and visual pollution potential at the new mint will be eliminated by designing buildings with internal and external noise level controls, and by construction of sufficient enclosed storage facilities so that metal and other supplies will not be stored in outside open areas, as in the case at the present Denver Mint. This would have the effect of removing a relatively minor noise and visual pollution source, from the downtown Denver area.

f. There will be some air pollution in the site vicinity due to the increased automotive traffic previously discussed. This additional traffic is primarily a transfer of traffic, and its resultant effects, from the area of the present Denver Mint, a more downtown and congested location.

Comment: Elimination of the air pollution caused by the added

automotive traffic is dependent upon improvements and expansions in mass transit systems in the Denver area, and technical improvements to reduce or eliminate polluting emissions from automotive vehicles.

2.5 Relocations of utilities

Electric power, gas, water, sanitary sewer and storm drainage lines cross the site, feeding or servicing other areas. These facilities are planned for utilization in providing utilities services to the new mint. These lines, a 115 KV power line, a 12-inch water line, a 16-inch gas line, a sanitary sewer and four storm sewers, will require relocation. A proposed new 72-inch sanitary sewer being designed by Denver Metropolitan Sanitary District Number One will have to be located through the site in such manner as to avoid mutual interference of the sewer and mint functions. Rerouting of the 115 KV power line and placing it underground will improve the aesthetics of the area. The other relocations will not change the environment. They will have to be accomplished without interrupting service. Runoff from the site, and from the approximately 800 acre tributary drainage basin to the west of the site, will be drained by swales, culverts and storm drains to discharge into the South Platte River. All improved areas of the completed facility will be landscaped with trees, shrubbery and ground cover to provide acceptable control of erosion and silting.

2.6 Interaction between man and wildlife

As noted in the last paragraph of Section 1.2 of this environmental impact statement, there are small populations of several species of fish and wildlife in the proposed project area. Some of these species are desirable and beneficial, particularly the catfish in the South Platte River. Some species are not desirable and may, in some instances, be harmful to man and to other species. The Department of the Interior, in commenting on the Draft Environmental Impact Statement for this proposed project, noted that, at times, some of the species are found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. Department of the Interior comments also stated that the new mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change and concluded that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area. The Colorado Division of Wildlife, after review of the proposed project, commented that, "This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area."

3. Probable Adverse Environmental Effects Which Cannot be Avoided Should the Project be Implemented

Adverse and unavoidable environmental impacts of the proposed project are (1) the increase in automotive traffic which its operations will bring to the area, (2) the relocation of people and commercial enterprises,

and (3) the various normal short-term impacts of the construction period and its traffic additions.

The increase in automotive traffic in the site area will be caused by the passenger car traffic of the 850 personnel who will work at the facility, by the daily average of 15 trucks making deliveries and pick-ups, and by busses and private cars bringing tourists to the mint. The automotive traffic will cause some additional air and noise pollution and traffic congestion, particularly on U. S. Interstate Highway I-25. The major portion of the added passenger traffic will be during nonpeak traffic periods, as the work shifts and tourist visitation periods at the mint will be regulated to avoid these traffic peaks. Also, truck traffic to and from the site will be controlled to minimize peak traffic period additions. The additions of automotive traffic in the area of the new mint will be counterbalanced by the elimination of about 50 percent of the same volume of automotive traffic in the area of the present Denver Mint at 320 West Colfax Avenue, a more downtown Denver location.

It will be necessary to relocate four commercial enterprises and approximately twenty families from the area. This relocation is unavoidable. The persons and businesses involved will be compensated fairly and justly in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646 (84 Stat. 1894 42 U.S.C. 4601).

The major environmental impacts of the construction period will be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project will include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

4. Alternatives to the Proposed Action

These alternatives may be considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

Regarding the location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that Denver is the optimum location for the new mint for the following reasons:

- a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other major coin production facility, the Philadelphia Mint.
- b. Denver is an excellent transportation center, with good trucking facilities available for shipping coins to the West Coast, as well as the Mid-West and points East as required. Transportation rates to Eastern points are favorable, as many trucks delivering to the Denver area return East empty.
- c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.
- d. Electricity, gas and water are available at favorable rates.
- e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in Denver has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (25 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the site located on the west bank of the South Platte River between the Valley Highway (I-25) and the river, and extending from Eighteenth Avenue to the Speer Boulevard interchange, has been selected tentatively for the following reasons:

- a. The site is adequate from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, etc.) for the proposed new mint.
- b. The mint at this location would be in harmony with the South Platte Development Project as proposed by the Denver Planning Office. The construction would complement the activities being undertaken through Urban Renewal in the Auraria and Skyline projects.
- c. The site has considerable aesthetic potential to provide a distinctive, dignified setting for the mint.
- d. The central location is generally favorable regarding availability of low and medium-cost housing and accessibility by employees using public transportation. (The latter should improve with time).
- e. The relatively downtown Denver location is advantageous for attracting tourists, an important consideration for the Bureau of the Mint and for the City of Denver.

Other locations in the Denver area were considered and have been eliminated from consideration at this time because of undesirable factors in comparison to the tentatively selected South Platte River site. The sites considered and the prime reasons for elimination are:

a. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the Twenty-third Avenue South Platte site.

b. University Boulevard at Valley Highway (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been made available by the City.

c. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the Gates Rubber Company, currently using the area, is expanding its operation and is not interested in selling the property.

d. York Street between Fortieth Avenue and Forty-third Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate aesthetic environment for the mint.

e. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

f. Park Hill Golf Course.

The Park Hill site has much to recommend it, but it is not particularly suitable for the new mint because of its setting near a residential area. The additional traffic and industrial operations

would degrade the area. Preserving this site as open space is desirable.

g. Nome Street between Thirty-seventh Avenue and Fortieth Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Sites outside the City of Denver.

These were considered, particularly locations at Rocky Mountain Arsenal and the Denver Federal Center, but they were eliminated because they would not have the advantage of assisting in the Urban Redevelopment of Denver.

5. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enforcement of Long-Term Productivity.

Cumulative and long-term effects of the proposed project might be assessed in terms of land use at the site and coining operations for the people of the United States. As stated earlier, the long-term suitability of the site for uses other than industrial operations is poor. The highways and roads on three sides produce a traffic and noise environment that is not compatible with residential or park-type uses.

A new mint on the site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean, mechanized facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the area should occur, assuming existing controls for preservation of the environment during construction are exercised. Generally, the proposed facility should result in an enhancement of the area in conformance with adjacent developments and planned land uses.

6. Any Irreversible and Irretrievable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented.

The proposed project is compatible with other developments in the vicinity. The land area is already zoned in part for motels and in part for medium industrial activities. The change to larger buildings on the site will result in more open space, and landscaping proposed will significantly increase the amount of green space. No historical or archaeological sites will be destroyed, nor will there be unalterable disruptions to the environment.

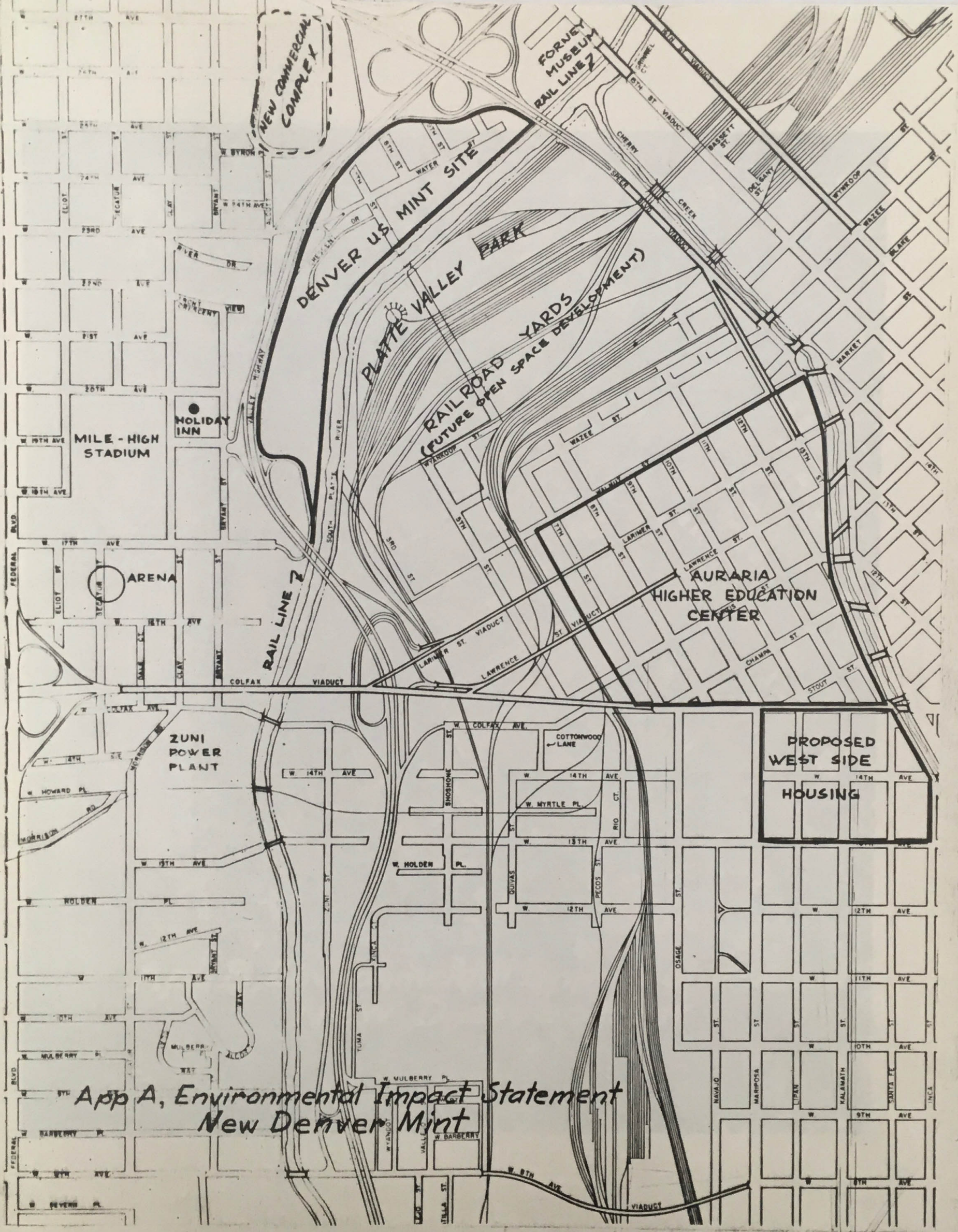
Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

7. Problems and Objections Raised by Other Federal, State, and Local Agencies and by Private Organizations and Individuals.

No federal, state, or local agency, private organization or individual has expressed any opposition in substance to this proposed project. On the contrary, the comments of local, state, and federal agencies basically have been favorable to the project. The Environmental Protection Agency's letter of comment states that, "In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection." Other comments expressing general agreement/lack of objection have been received from the City and County of Denver, the Department of Defense, the Department of Housing and Urban Development, the Department of the Interior, the Colorado State Department of Highways, the Regional Transportation District, the Colorado Division of Wildlife, the State Historical Society of Colorado and the Denver Board of Water Commissioners. Comments from these agencies and from other agencies and organizations are attached hereto in Appendix C.

Some comments received on the proposed project did present concern regarding aspects of (1) preventing air and water pollution, (2) joint planning and coordination in the resolution of vehicular traffic problems, and (3) the availability of low and moderate income housing. The discussion of these matters has been expanded in the appropriate sections of this final statement from that presented in the draft statement in an attempt to resolve the issues raised in the various comments.



NEW COMMERCIAL COMPLEX

FORNEY MUSEUM

DENVER US MINT SITE

PLATTE VALLEY PARK

RAILROAD YARDS
(FUTURE OPEN SPACE DEVELOPMENT)

AURARIA
HIGHER EDUCATION
CENTER

PROPOSED
WEST SIDE
HOUSING

ZUNI
POWER
PLANT

App A, Environmental Impact Statement
New Denver Mint



*App B, Environmental Impact Statement
New Denver Mint*

ENVIRONMENTAL PROTECTION AGENCY

U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C. 20460

September 25, 1972

229 2872

Mr. Frank V. Rice
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Ave.
Denver, Colorado 80204

APPENDIX C

Attached hereto are copies of all comments received on the Draft Environmental Statement for the proposed new Denver Mint. These comments are arranged in the same order as listed in paragraph 5 of the Summary Sheet for this Final Environmental Impact Statement.

In general, the Draft statement describes the project and the anticipated environmental impacts in a satisfactory manner. We suggest, however, that the third sentence of paragraph "I" on page 5 be revised to indicate that subsurface water seepage, and not process liquids, will be discharged as effluent into the South Platte River.

In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category I: General Agreement/Lack of objection.

We appreciate the opportunity to review this statement, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Sincerely yours,


John A. Green
Regional Administrator

ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

SUITE 900 1860 LINCOLN STREET,
DENVER COLORADO 80203

September 25, 1972

Ref: AWIE

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

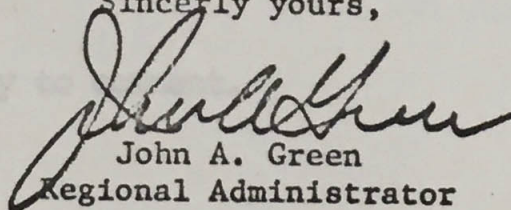
Dear Mr. Rhea:

The Environmental Protection Agency has reviewed the draft environmental impact statement for the proposed new Denver Mint. In general, the draft statement describes the project and the anticipated environmental impacts in a satisfactory manner. We suggest, however, that the third sentence of paragraph "f" on page 9 be revised to indicate that subsurface water seepages, and not process liquids, will be discharged as effluent into the South Platte River.

In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection.

We appreciate the opportunity to review this statement, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Sincerely yours,



John A. Green
Regional Administrator

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

P. O. Box 17107, Denver, Colorado 80217

September 8, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the Draft Environmental Impact Statement for Construction of the New U. S. Mint, Denver, Colorado.

The statement is well prepared and appears to adequately cover the requirements of N.E.P.A.

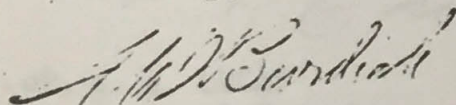
Our primary comment relates to Section 2.4, page 9 of the Statement. We believe the statement concerning pollution prevention and site protection during construction might be strengthened.

We have found that, while no laws or regulations appear to be violated, there is a serious problem in the Denver area caused by erosion from urban development sites. Because of the proposed Mint site location on the banks of the South Platte River, site erosion could degrade the River if proper protection is not afforded during construction.

In regard to the last sentence in Section 1, page 4; we bring to your attention the fact that recently a chemical company in the site area was fined through EPA action for killing fish in the South Platte River with an industrial discharge. Apparently, the fish in the South Platte are considered significant wildlife.

Thank you for the opportunity to comment.

Sincerely,



M. D. Burdick
State Conservationist



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

ROCKY MOUNTAIN REGION
BUILDING 85, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO

1940

September 26, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

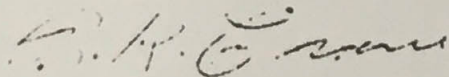
Dear Mr. Rhea:

Thank you for the opportunity to review the Draft Environmental Impact Statement for the proposed construction of the new United States Mint - Denver, Colorado.

I recommend that the visual impacts from important vantage points be evaluated and considered in the plans. This might involve coordinated planning between this area and the South Platte Development Project to create visual harmony.

The proximity of Interstate 25 needs to be considered from the standpoint of noise and chemical pollution potential. I suggest Department of Agriculture Bulletin #246 "Trees and Shrubs for Noise Abatement," which is enclosed.

Sincerely,



W. J. LUCAS
Regional Forester

Enclosure





THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

September 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Unit
320 West Colfax Avenue
Denver, Colorado 80204

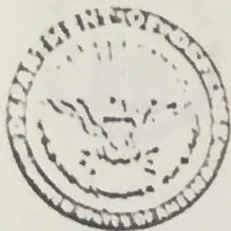
Dear Mr. Rhea:

Thank you for your August 7, 1972, letter to the Economic Development Administration which transmitted the draft environmental impact statement for the proposed new Denver mint. The Department of Commerce has reviewed the document and has no comment.

Sincerely,

A handwritten signature in cursive script, reading "Sidney R. Galler", is written over the typed name.

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs



DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
7410 U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

NROND-PE

12 September 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

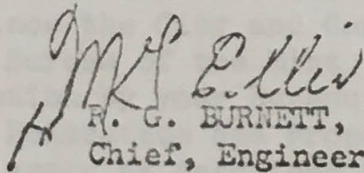
Dear Mr. Rhea:

I refer to your letter of 4 August 1972 transmitting the Draft Environmental Statement for Construction of New United States Mint - Denver, Colorado.

The draft statement appears to adequately discuss the environmental impacts of the proposed action. Your discussion of the problems involved in locating the facility in the South Platte River flood plain is well presented.

We appreciate the opportunity to comment on the subject draft statement.

Sincerely yours,


R. G. BURNETT, P. E.
Chief, Engineering Division



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 1915 AND STOUT STREETS
DENVER, COLORADO 80202

REGION VIII

September 28, 1972

IN REPLY REFER TO:

8M

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

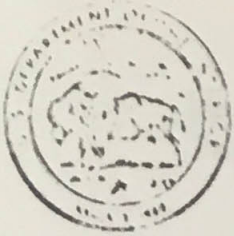
Subject: Draft EIS, Denver Mint

Please excuse our delay in forwarding our comments on the subject statement. As you may know, we participated with GSA in the evaluation of many proposed sites in the Denver Metro area. The selected site was one of two sites which we recommended be given top consideration from the point of view of HUD's responsibility and involvement with the City and County of Denver.

In particular, we believe the selection will compliment Denver's renewal effort and assist in implementing the HUD-funded Platte River planning objectives. It is also our opinion that your statement on Page 13, Paragraph d, concerning the availability of low and moderate income housing to be accurate and significant.

Our only concern with your draft statement is on the matter of relocation benefits for those businesses and persons to be displaced from the site. As you may know, the Colorado Relocation Assistance Act of 1971 relates to Federally-assisted projects carried out by the state, or a state agency. It does not require any payment of any relocation benefits for nonfederally-assisted displacement activities. We believe that since the City and County of Denver is acting as the agent for the Bureau of the Mint, and displacement will occur after the site selection by your Bureau, the provisions and limitations of the Uniform Relocation and Property Acquisition Act of 1970, (PL-91-646), will apply as described in Section 208 of Title II of the Act.

As you may know, the Denver Urban Renewal Authority has been designated the central relocation agency in the city, and we recommend that you contact them. They should be in a position to assist you in complying with the requirements of Section 210 of Title II of the Act.



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

E3053
ER-72/959

SEP 19 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in reply to your request of August 4, to the Department of the Interior for comments on the draft environmental statement for the new Denver Mint, Denver, Colorado.

Our general comment is that the statement appears to adequately discuss and define the environment and impacts thereon of the proposed new mint. However, some additional discussion on fish and wildlife values would appear to be appropriate. The statement that "There is no known wildlife of significance in the area." is only partially correct. The following is a listing of the more common species of the immediate site: skunks, raccoons, muskrats, Norway rats, mice, feral house cats, feral pigeons, doves, ducks, starlings, English sparrows and several species of non-game fish in and adjacent to the South Platte River which runs past the proposed Mint site. Several of the above-mentioned species are, at times, found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. This aspect of interaction between man and wildlife should be considered in greater detail.

The new Mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change. For example, construction of the Mint, assuming proper design, will destroy or greatly reduce the rat population of the immediate area. Aesthetic improvement may also result.

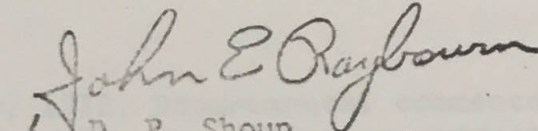
Our conclusions are that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area.

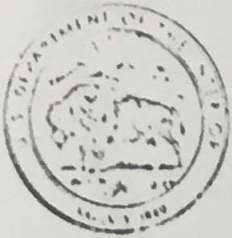
Mr. Frank W. Rhea
Page 2

Additionally, we believe the conclusion regarding the Rocky Mountain Arsenal as a possible alternative site, under "Alternatives to the Proposed Action" should be substantiated. For example, use of the Arsenal would provide a site without cost to the government, would not entail relocation of houses, businesses and people, and would not have as adverse an impact upon traffic patterns and congestion. Employees and tourist access to such a site would be excellent via three interstate highways, Stapleton Airport, and several railroad lines. We suggest the alternative section discuss the environment of the Arsenal and the impact of constructing the Mint thereon.

We appreciate the opportunity to comment.

Sincerely yours,


for D. P. Shoup
Field Representative



United States Department of the Interior

OFFICE OF THE SECRETARY
MISSOURI BASIN REGION

IN REPLY REFER TO:
ER 72/959

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

September 27, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

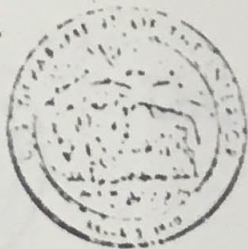
By letter dated September 19, 1972, Departmental comments were provided on the draft environmental statement for construction of the United States Mint, Denver, Colorado. Subsequent to that date, the enclosed comments were received from the Bureau of Mines and the U.S. Geological Survey.

These comments are forwarded for your information.

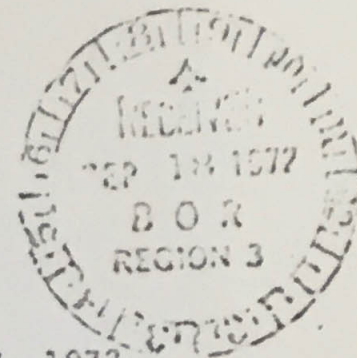
Sincerely yours,

John E. Raybourn
for D. P. Shoup
Field Representative

Enclosures 2



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D.C. 20240



ER-72/959

September 7, 1972

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver, Colorado
Through: Assistant Secretary--Mineral Resources *W. J. [unclear]*
SEP 14 1972

From: Director, Bureau of Mines

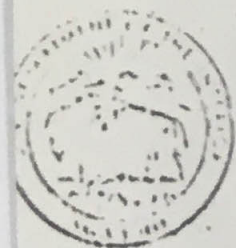
Subject: Draft environmental statement, Bureau of the Mint, construction of United States Mint, Denver, Colorado

The draft environmental statement for construction of the proposed United States Mint, Denver, Colorado, has been reviewed. The new mint would be constructed on a 30-acre site on the west bank of the South Platte River in the City of Denver between the river and the Valley Highway (I-25) from about Eighteenth Avenue to Speer Boulevard. Proposed construction would include about 700,000 square feet of building space, parking areas, paved vehicular maneuvering area, installation of utilities, and landscaping. The South Platte River site was selected as the most favorable of several considered.

The proposed construction would have no direct effects, adverse or beneficial, on mineral resources. Although not in our area of concern, we believe the site to be a good choice because redevelopment would help bring about enhancement of the general area.

The environmental statement discusses a potential adverse feature of the site in that its location on the South Platte River flood plain could have serious implications if the upstream Chatfield Dam is not completed on schedule.

Elbert [unclear]
Director



United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICE OF THE DIRECTOR

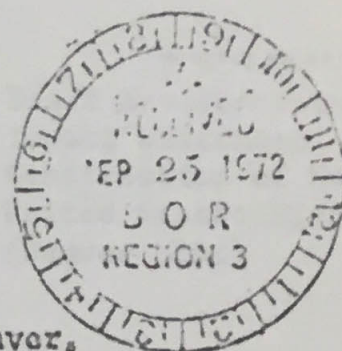
ER-72/959

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver,
Colorado

From: Director, Geological Survey

Subject: Review of draft environmental statement on new Denver Mint,
Denver, Colorado



We have reviewed the subject draft environmental statement as requested in a memorandum of August 10 from the Director, Office of Environmental Project Review. Our comments are as follows:

The third paragraph on page 4 contains a statement that the bedrock is Pierre Shale. The bedrock of the area is not Pierre Shale, but rather is Upper Dawson Formation.

In reference to sub-paragraph f, page 9, it is very likely that basement areas in the building will require special protection from seasonally high water-table conditions.

The assessment of the flood risk factor contained in sub-paragraph g, page 9, seems to be reasonable, especially considering the soon-to-be completed Chatfield Dam.

Noting Director

cc: Director, PEP, (advance) ✓
Gen. Files
Dir. Chron.
Mr. Coulter, GD
Mr. Davis, WRD

HGStewart:src:9/12/72



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION EIGHT
BUILDING 40, DENVER FEDERAL CENTER
DENVER, COLORADO 80223

October 11, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

IN REPLY REFER TO:

Draft Environmental
Impact Statement
Construction of New
United States Mint
(Denver Mint)

Dear Mr. Rhea:

This is in response to your letter of August 4, 1972, in which you requested Federal Highway Administration review and comments on the Draft Environmental Impact Statement for the proposed new Denver Mint. In accordance with our review procedures, this letter will serve as the consolidated response of the Colorado Division Office and the Region 8 Office.

Except for a couple of minor items our comments will be directed mainly toward the impact upon the highway system.

Appendix A map, although supplemented with Appendix B aerial photo, is a rather outdated version which does not portray a complete picture of the local street system in the vicinity of the proposed project.

The statement, page 6 paragraph 1e, should be deleted as the widening of I 25 through the subject area has been accomplished.

At the top of page 6, (Section 2.2) the statement is made that traffic generated by the proposed project is "relatively negligible when measured against the 105,800 vehicles using the Valley Highway on an average weekday in 1971." The 105,800 vehicles is an accumulation of "relatively negligible" traffic generations, which if allowed to continue will result in the continued deterioration of traffic service. No traffic generator located in this corridor is negligible.

Mr. Frank W. Rhea
October 11, 1972
Page Two

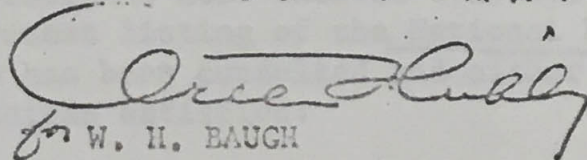
The matter of transportation deficiencies in the corridor of the Valley Highway has been recognized by the Colorado Department of Highways and the Federal Highway Administration and as a result preliminary studies have been programmed to further improve the corridor. We are pleased to note the recognition given in the environmental statement to these deficiencies and of the need for coordination for their resolution. We are particularly concerned as land necessary for the correction of deficiencies is not available within the existing right of way.

One of the Valley Highway's primary inadequacies is the lack of frontage or collector-distributor roads from Colfax Avenue north to the W. 38th Avenue interchange. To correct this will involve revision, elimination or relocation of the closely spaced interchanges at Speer Boulevard, W. 23rd Avenue and W. 19th Avenue. The Colorado Department of Highways has recently submitted a program for project FI 025-2(9) which includes funds for the consideration of environmental impacts and for preliminary engineering studies in this area. Another recently submitted program is for project M 7252(001) Blake-Market Streets, Federal Boulevard to 23rd Street.

With the developments proposed for the subject area and the proximate timing of the Denver Mint proposal and the transportation studies and subsequent proposals, it becomes apparent that joint-development and multiple-use considerations are necessary to assure the most functional project with the least environmental impact.

We welcome the opportunity to comment on the proposal and statement. We offer our continued cooperation and assistance in the development and preparation of the final environmental statement.

Sincerely yours, A. F. L'ESTY



W. H. BAUGH
Regional Federal Highway Administrator

cc: Colorado Division - 1
TEU (10) - 1
Secretarial Representative - Region- 1
CEQ - 5

ADVISORY COUNCIL
ON
HISTORIC PRESERVATION

WASHINGTON, D.C. 20540

October 5, 1972

Mr. Robert R. Fredlund
Director, Administrative Programs
Department of the Treasury
Washington, D. C. 20220

Dear Mr. Fredlund:

Thank you for the copy of the draft environmental statement prepared by the Bureau of the Mint, Department of the Treasury, for the construction of the New United States Mint - Denver, Colorado. This draft statement was enclosed with your letter of August 28, 1972, as an example of additional materials detailing the Treasury's policy vis-a-vis historic preservation.

In order to alert you to our approach to the review of such statements, and because the present Mint is listed in the National Register of Historic Places, we thought it would be both useful and appropriate for us to give you our informal comments on the statement. Ms. Penny Lianos of your office indicated that you would be interested in such a response.

We appreciate the concern expressed in your letter and in the draft statement for the fate of the present Mint. However, the section referring to the Mint is the only mention of historic resources in the draft statement. There is no mention of the impact of the new Mint on historic resources. The statement would therefore be considered inadequate were it under our formal review. The Council staff would respond by asking for additional information from your agency indicating:

- a. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470(f)). The draft environmental statement must include evidence indicating that the most recent listing of the National Register of Historic Places has been consulted and either of the following conditions satisfied:

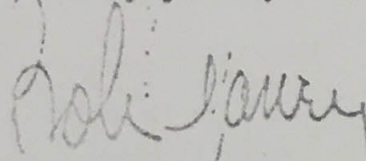
1. If no National Register property is affected by the project, a section detailing this determination must appear in the draft environmental statement.

2. If a National Register property is affected by the project, the environmental statement must contain an account of steps taken in compliance with Section 106 and a comprehensive discussion of the contemplated effects on the National Register property. (Procedures for compliance with Section 106 are detailed in the Federal Register of March 15, 1972, p. 5430.)

- > b. Compliance with Executive Order 11593 of May 13, 1972.
- c. That a comprehensive interdisciplinary study has been made of all archeological, historical, architectural and cultural resources extant in the proposed project area; the effects, if any, on these resources; and an account of steps taken to assure their preservation and enhancement.
- d. Contact with the Historic Preservation Officer for the State or Territory involved. In order to insure as comprehensive a review of historical, cultural, archeological, and architectural resources as possible, the Advisory Council would suggest that the draft environmental statement contain a copy of this officer's comments concerning the effect of the undertaking upon the resources listed in c), including properties of historic value not listed on the National Register.

We appreciate this opportunity to look at this draft statement as an example of your agency's policy in this area. We hope that our comments will be useful as the Mint statement goes into final form and as other statements are drafted in the future.

Sincerely yours,



Robert R. Carvey, Jr.
Executive Secretary

cc:

Dr. S.K. Stevens, 20 Center Drive, Camp Hill, Pennsylvania 17011

OFFICE OF ECONOMIC
OPPORTUNITY

EXECUTIVE OFFICE OF THE PRESIDENT
Region VIII
Federal Bldg., 1961 Stout St.
Denver, Colorado 80202

August 8, 1972

IN REPLY REFER TO: 8/GR

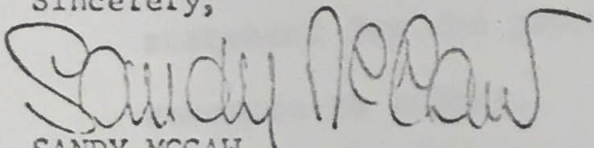
• Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Your request for comments on the Draft Environmental Impact Statement for the proposed new Denver Mint, has been received by the Office of Economic Opportunity. This office has no comments to make regarding the project except to urge that the twenty families and several businesses who will be relocated in connection with the proposed project receive timely advice regarding the benefits for which they qualify under the uniform relocation act.

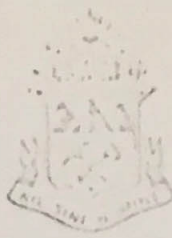
Thank you for providing us the opportunity to comment on your draft statement.

Sincerely,



SANDY MCCAWE

Governmental Relations Specialist



State of Colorado
DIVISION of COMMERCE and DEVELOPMENT

DEPARTMENT OF LOCAL AFFAIRS

600 State Capitol Annex, Denver, Colorado 80203, Area Code 303, 222-9911

John A. Love
Governor

Dwight E. Neill
Director

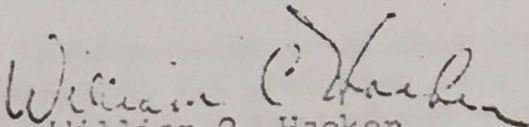
16 August 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft environmental impact
statement for the proposed Denver Mint and have no
comments to submit.

Sincerely,


William C. Hacker
Director
Community Development

WCH:nlhK



STATE OF COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. GLEERE, M.D., M.P.H., DIRECTOR

August 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We appreciate the opportunity to comment upon the Draft Environmental Impact Statement for the proposed new Denver Mint.

After careful study by the Air Pollution Control Division, we feel several major points should be considered. Initially, we are concerned about the proposed site of the new mint. The location is very poor from a meteorological point of view. Air pollutants accumulate along the Platte River valley, and tend to follow the river valley northward during nighttime and early-morning poor dispersion conditions. The Platte River valley, with adjoining highway system and local industry already is a major source of Denver air pollutants. Additional industries in this area must be designed for near zero air pollution emissions if we are ever to achieve national ambient air quality standards.

Another major point that should be considered is the current State and national air pollution control emission standards. Toward that end, I am enclosing a copy of the State rules and regulations. It should be pointed out that future emission regulations are now being prepared by both State and national agencies.

If the Colorado Air Pollution Control Division of the Department of Health may be of further service, please call upon us.

Cordially,

G. P. Wood, Ph.D., Director
Air Pollution Control Division
By:

Lindsay M. Tipton

Lindsay Tipton
Air Pollution Control Specialist
Planning Section
Air Pollution Control Division

LT:pc
Enclosure ...



COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. CLEERE, M.D., M.P.H., DIRECTOR

August 11, 1972

Mr. Frank W. Rhea
Bureau of the Mint
230 West Colfax Ave.
Denver, Colorado 80204

RE: DRAFT Environmental Impact Statement
New Denver Mint

Dear Mr. Rhea:

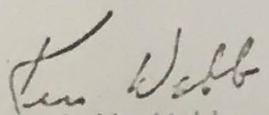
The impact statement referred to above has been reviewed by this Division. Our comments are as follows:

- 1) Section 2.4 Item b, page 10. It is assumed from this statement there will be no effluents from this plant except as noted below.
- 2) Section 2.4 Item c, page 10. It is assumed from this statement that process cooling water will be recirculated for reuse and there will be no discharge of cooling water to the South Platte River. It is conceivable the South Platte adjacent to the proposed Mint site may be reclassified to warm water fishery in the future. We are therefore enclosing a copy of the Water Quality Standards for Colorado for your information. Your attention is called to Item B 2.e page 5 in the event provisions are made to bypass the cooling towers for emergency or temporary use.
- 3) We request that adequate provisions be made to prevent an increase in turbidity of the S. Platte during the construction phase of the project.

We thank you for the opportunity to review this statement.

Very truly yours,

FOR DIRECTOR, WATER POLLUTION CONTROL DIVISION


Kenneth W. Webb, P.E.
Public Health Engineer

cc: Dr. Downs

enclosure: Water Quality Standards

STATE DEPARTMENT OF HIGHWAYS

CHAS. E. SHUMATE

EXECUTIVE DIRECTOR

DIVISION OF HIGHWAYS

LAURENCE C. BOWER

CHIEF ENGINEER

STATE OF COLORADO



COLORADO STATE PATROL

COL C WAYNE KEITH

CHIEF

4201 EAST ARKANSAS AVENUE • DENVER, COLORADO 80222 • (303) 757-9011

August 28, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax
Denver, Colorado 80204

Dear Mr. Rhea:

Reference is made to your letter dated August 4, 1972, transmitting a draft Environmental Impact Statement as required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

The Colorado Department of Highways appreciates the opportunity to review this Draft Environmental Impact Statement concerned with the construction of the new United States Mint in Denver, Colorado.

This Department has no objection to the construction of the new Mint at the proposed South Platte River location.

After an on-site examination of the proposed project by personnel from the Department's Environmental Section, the statement in its present form appears to be complete and satisfactory.

If the Colorado Department of Highways can be of further assistance to you please feel free to contact us at your convenience.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'Chas. E. Shumate'.

CHAS. E. SHUMATE
Executive Director

CES:as

cc: Bower - Haase- Zulian
R. E. Heathcote
Harvey Atchison

STATE OF COLORADO

John A. Love, Governor

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WILDLIFE

Harry R. Woodward, Director

6060 Broadway

Denver, Colorado 80216 • 825-1192

75th Anniversary - 1897 1972

September 20, 1972



Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Division of Wildlife has reviewed the Draft Environmental Statement entitled "Construction of a New United States Mint - Denver, Colorado" and offers the following comments:

A sub-heading is needed to separate the Project Description from the description of the existing environment.

Game species in the area include muskrat, mink, song birds, waterfowl and other migratory birds. Populations are small. Fish species include channel catfish, a few trout and rough fish. The Division of Wildlife has been planting catfish in the South Platte River near the project area for several years.

We recommend that all facilities for treatment of chemical effluent and oils be located out of the flood plain to prevent contamination of the South Platte River through flooding or leakage.

This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area.

We appreciate the opportunity to comment on the statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harry R. Woodward".

Harry R. Woodward
Director

DS/cb

cc: T. W. Ten Eyck
E. P. Cook

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

January 16, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

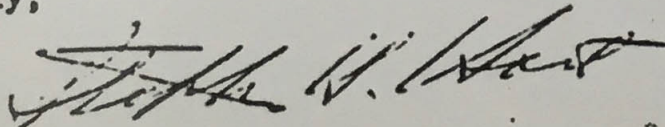
As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

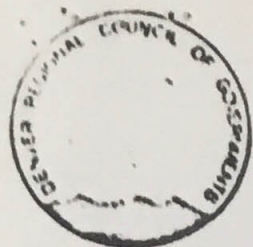
Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,



Stephen H. Hart
Colorado State Liaison Officer



DENVER REGIONAL COUNCIL OF GOVERNMENTS

1776 SOUTH JACKSON STREET • SUITE 200 • DENVER, COLORADO 80210 • 758-5166

September 20, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Subject: EI/008-72 Draft Environmental Impact Statement for
Construction of the New U. S. Mint in Denver, Colorado

Dear Mr. Rhea:

Reference is made to your letter and enclosure of August 4, 1972, concerning review of the draft Environmental Impact Statement for Construction of the New U. S. Mint in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (Public Law 01-100). In response to your communication, we have notified concerned and affected jurisdictions and agencies in the region and have made available to them copies of the draft Environmental Impact Statement. In addition, the Council has reviewed the Statement as it relates to the Council of Governments' concern with areawide planning and development.

Enclosed are the comments that were made on the draft Environmental Impact Statement.

The Council of Governments appreciates this opportunity to be of service to your agency.

Sincerely,

Robert D. Farley
Robert D. Farley
Executive Director

Enclosure

cc: Mayor W. McNichols, Jr., COG Representative, City & Co. of Denver
Councilman I. Hook, COG Representative, City & Co. of Denver
H. Cook, Director of Public Works, City & Co. of Denver
A. Canter, Director, Denver Planning Office
L. LaPerriere, Director, Urban Resources Development Agency
P. Schmuck, Director, State Planning Division

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Jeff. Co. Comm.

COMMENTS ON EI/008-72
U. S. Mint Draft Environmental Impact Statement

DRCOG Staff: The DRCOG staff in general finds that the draft statement addresses and answers all issues in accordance with the National Environmental Policy Act.

The following comments relate primarily to the statements on the impact of the relocation of the U. S. Mint facilities in terms of: (1) those households currently located on the proposed site which will be required to relocate elsewhere; and (2) the Mint's present employees, particularly those of low- and moderate-income, whose residence-employment transportation pattern will be altered by the facility move.

There are two Federal Register citations regarding the location and relocation of federal facilities: (1) "Consideration of Socioeconomic Impact when Selecting Locations for Federal Buildings" -- FR, Volume 36, No. 231, Wednesday, December 1, 1971; and (2) "Procedures for Assuring Availability of Housing on Nondiscriminatory Basis for Low- and Moderate-Income Employees" -- FR, Volume 36, No. 239, Saturday, December 11, 1971. The intent of the two citations is to outline federal agency policy regarding the location and relocation of federal facilities and both the impact of such activities on current and projected federal employees, as well as the opportunities provided in such moves in furtherance of national housing goals and objectives in expanding the supply of low- and moderate-income housing available to federal employees involved in facility locations and relocations. The two citations are explicit as to the federal agency responsibilities in seeing that this intent is both pursued and achieved.

In view of the above there is a need for explicit "plans" regarding:

- (1) The relocation of the 20 families involved on the proposed site; and
- (2) The provision of alternative housing to both present and potential low- and moderate-income Mint employees, due to the relocation of the facility.

Comments On EI/008-72
Page 2

The substance of both plans would be a clear demonstration of sufficient availability of low- and moderate-income housing for both employees and relocatees.

The area in question is shown on the adopted DRCOG Regional Development Plan as commercial and services.

The comments should not be construed as critical of the Environmental Impact Statement itself, but only to outline an area of concern that appears to need further consideration. (September 7, 1972)

Denver Planning Office: (See the attached letter, dated September 19, 1972)

September 20, 1972
cjm

Regional Transportation District

66 Steele Street
Denver, Colorado 80200
303/399-8140

September 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

In response to your request, our review of the Draft Environmental Impact Statement for the proposed new Denver Mint has produced the following comments:

1. The name used in the report in reference to the public transportation agency should be corrected in all instances to read the "Regional Transportation District."
2. Section 2.2, beginning on page 5, should include a stronger statement concerning required coordination between site planning for the new Mint and planning for public transportation in the immediate vicinity, as well as within the entire metropolitan region. Such coordination may have a significant impact on employee and visitor traffic at the site, and site access. RTD has several planning proposals which have a direct relationship to the proposed new Mint location. We would be glad to discuss our proposals with you to begin to develop the necessary coordination.
3. The fact that the Department of Highways is also preparing to investigate a location for a new highway facility, the Market/Blake Parkway, in the immediate area, points out the need for total coordination between all agencies involved to assure consistency in overall planning.
4. With respect to public transportation, we see no adverse environmental affects from the proposed relocation of the Mint. We do feel that the opportunity to work together can permit the development of an optimum transportation connection to the mutual benefit of the Mint, the public transportation system, and the entire Denver region.

Please feel free to contact me at any time you wish to discuss the situation.

Yours very truly,

Harry L. Parrish Jr.
Harry L. Parrish, Jr.
Executive Director

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NUMBER ONE

3100 EAST 80TH AVENUE • COMMERCE CITY, COLORADO 80022 • PHONE: 303-288-6613

WILLIAM E. KORDITZ, P. E.
MANAGER

FRED E. HENDRICKSON
HAROLD V. COOK
MARY B. O'DELL
WILLIAM E. KUHN

CHAIRMAN
CHAIRMAN PRO TEM
SECRETARY
TREASURER

August 10, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 W. Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft of the Environmental Impact Statement which you sent to us on August 4, 1972. As mentioned in the statement, the District is proposing to construct a sanitary interceptor sewer which will generally parallel the South Platte River on the west side. The design of this facility was in its final stages when information was received that the new mint may be located at the now proposed site. Design was, therefore, based on the location of existing roads and buildings.

Since this land is presently the property of the City and County of Denver, our contacts have been with the City Engineer. Plans for the sewer have been sent to him for review. Should a conflict exist between our present alignment and your plant facilities, we, along with our consulting engineer, would be happy to meet with you to discuss a possible modification.

Since our available tolerances on both grade and alignment are very close through this area, we would greatly appreciate the cooperation of your office and the City and County of Denver in working out a solution which

Mr. Frank W. Rhea

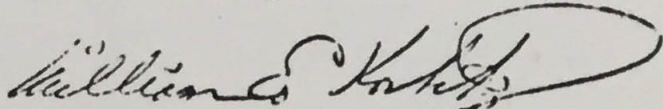
Page 2

August 10, 1972

will be to the benefit of all concerned. Our present plans call for this project to go under construction in early 1973; therefore, if any conflict exists, we would appreciate a response from you or the City in the near future.

August 11, 1972

Very truly yours,



William E. Korbitz, P.E.
Manager

WEK:ble

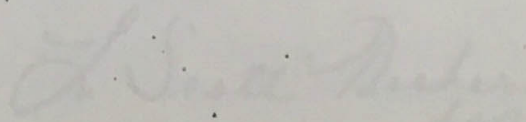
cc - Jack Keller
Fred Hendrickson
Jack Bruce

Dear Mr. Rhea:

This letter regards your request for comments you have regarding the environmental impact statement for the proposed new Denver Mint. The proposed mint is located in the South Platte flood plain of the South Platte. Planning is based on the closure of Cheyenne as scheduled by the Corps in 1973 and flood proofing against the Standard Project Flood. After Cheyenne, the Intermediate Regional Flood will be retained within the Platte channel and this aspect is covered in detail in the draft you provided.

One aspect that is not covered, however, is the drainage tributary to the site from the west. The site is located at the base of a drainage area of approximately 500 acres that is a tributary to the Platte. This area is highly developed and includes the Valley Highway. Site planning should recognize the tributary drainage. I point this out for your information and do not think it will provide any problems that can not be easily handled.

Sincerely,



L. Scott Tucker
Executive Director



L. Scott Tucker, Executive Director

August 25, 1972

Executive Committee:

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Arapahoe County

Kenneth D. Mitchell
City of Brighton

James Van Buskirk
Boulder County

Irving S. Hook
City of Denver

Charles S. Robinson
Engineer

Members:

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Jefferson County

David Cran
Adams County

Richard McLean
City of Boulder

Paul C. Beck
City of Aurora

Arlen E. Patton
Engineer

David A. Curtis
Douglas County

DENVER, COLORADO 80216
181 E. 56TH AVENUE • 334-0105 • TELEPHONE

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This letter regards your request for comments you have regarding the environmental impact statement for the proposed new Denver Mint. The proposed mint is located in the South Platte flood plain of the South Platte. Planning is based on the closure of Chatfield as scheduled by the Corps in 1973 and flood proofing against the Standard Project flood. After Chatfield, the Intermediate Regional flood will be retained within the Platte channel and this aspect is covered in detail in the draft you provided.

One aspect that is not covered, however, is the drainage tributary to the site from the west. The site is located at the base of a drainage area of approximately 800 acres that is a tributary to the Platte. This area is highly developed and includes the Valley Highway. Site planning should recognize the tributary drainage. I point this out for your information and do not think it will provide any problems that can not be easily handled.

Sincerely,

L. Scott Tucker
L. Scott Tucker,
Executive Director



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

September 19, 1972

Mr. Robert Farley, Executive Director
Denver Regional Council of Governments
1776 South Jackson Street
Denver, Colorado 80210

ATTENTION: Duane Ebertowski

SUBJECT: Denver Planning Office review
of Draft Environmental Impact Statement
on new United States Mint

Dear Mr. Farley:

Thank you for the opportunity to review the Draft Environmental Impact Statement prepared by the Bureau of the Mint, Department of the Treasury related to the construction of the new United States Mint in the City and County of Denver. Our general reaction to the statement is that it satisfies the needs and addresses the issues that we understand are intended in the requirements for an Environmental Impact Statement. We are generally satisfied with the location of the Mint and the evaluation of the environmental issues involved, as described in this statement.

However, we would like to call to the attention of the drafter of this statement that there are a few corrections that we would like to see made, as follows:

1. On page 3, at the end of the fourth full paragraph, delete the words "combination residential and commercial building", and replace with the words "office building complex."
2. On page 4, first paragraph, second line "Denver Planning Commission's" should read "Denver Planning Office's". On the 4th line, insert "and" between "east" and "a Platte River Park" and insert a period after the phrase "(presently railroad yards)" and delete the remainder of that sentence.
3. On page 4, in the last paragraph, change "Denver Planning Commission" to "Denver Planning Office".
4. On page 6, in the first full paragraph, change "Denver Planning Commission" to "Denver Planning Office". Also, on page 6, under item c., change "The location of the proposed Market Street throughway" to "The location of the proposed Market-Blake Parkway" and under item d., change

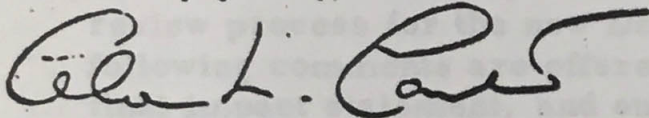
Mr. Robert Farley
September 19, 1972
Page 2

"The location of the proposed mass transit "People Mover" connecting downtown" to "The location of the proposed personalized rapid transit (PRT) "People Mover" connecting downtown" and in the same sentence, change the "Bears Stadium" to the "Mile High Stadium".

5. On page 6, delete item e. entirely and change item f. to a new item e.
6. On page 14, under item b. change the "Denver Planning Commission" to the "Denver Planning Office."

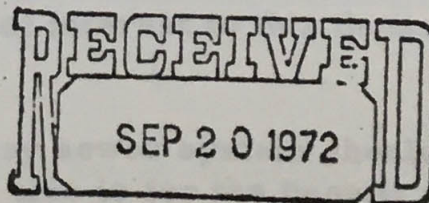
Again, thank you for the opportunity to review this Draft Environmental Impact Statement. We would be anxious to receive a copy of the final statement when it is prepared.

Sincerely yours,



Alan L. Canter
Director of Planning

ALC/AGA/jp



D. R. C. O. G.

JAMES L. OGILVIE
Secretary-Manager



Board of Water Commissioners

144 West Colfax Avenue Denver, Colorado 80202 Phone 222-5511
COMMISSIONERS

ANDREW HORAN, JR., President WILLIAM G. TEMPLE, 1st Vice-President
JOHN A. YELENICK A. ASBORNO CHARLES F. BRANNAN

August 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
U.S. Department of the Treasury
Bureau of the Mint, Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for including the Water Department in your information and review process for the new Denver Mint. As per your request, the following comments are offered in connection with development of your final impact statement, and subsequently in the development of your new Denver Mint.

First, I would like to address the problems of water facilities and supply. It may be in the best interest of the Mint and the Water Department if you would contact the Department's Marketing Section at the earliest possible date. Mr. P. K. Bryant of that section will be able to provide you information on policy and procedures for relocating and/or extending water mains, arranging for taps from mains, and the potential water supply available (such as rates of flow and pressures). Your plans and scheduling may be affected by construction of a water supply.

Secondly, I will send you, under separate cover, a copy of our 1971 Water Quality Report. I'm sure it will be of use to your process design consultants. I will appreciate the opportunity of reviewing the plans and specifications for the water pollution control system.

Third, the estimated quantity of water necessary for both industrial and domestic use, the quality and quantity of return flow directly to Platte River and periods of discharge are of interest to this department's successive use program.

Finally, any discharge to the sanitary sewer system should be qualitatively summarized. The basic reason for this is for the benefit of Metropolitan Sewage District No. 1, who has to treat the sewage, and for the Water

Mr. Frank Rhea

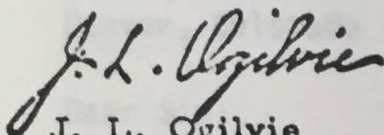
August 18, 1972

Page 2

Department, who, in the near future, will develop a portion of this effluent as successive use water. We would also appreciate being informed of any additional parameters that may be placed upon our project by your proposed development, through changes in water quality.

I am sure that the new Mint would esthetically add to the area and wish you success in implementation of the project.

Sincerely,



J. L. Ogilvie
Manager

JLO/ee

THORNE
ECOLOGICAL
INSTITUTE

1405 Broadway

XXXXXXXXXXXXXXXXXXXXX

BOULDER, COLORADO 80302 (303) 443-4444

7321

August 30, 1972

Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Sir:

We have reviewed the draft environmental impact statement relating to the construction of the new U. S. Mint in Denver. We have kept our comments brief but I think they will suffice to show the area of interest:

1. The proposed location will increase air pollution from vehicles -- tourists as well as mint works -- in an area that already naturally serves as a settling basin for smog.
2. Is there an absolute guarantee that air pollution from smelting, metal work, et al will be eliminated by the devices proposed to be used? Have these devices been thoroughly tested under similar situations? It is our understanding that there are still technical problems to be solved.
3. It is possible that sewage waste contamination might occur to the South Platte River at a time of flooding through "back flushing" because the proposed new Mint building will be located on a flood plain and at or near the possible flood level at times.
4. We might suggest an operational stipulation to include continuous monitoring of all effluents to the South Platte River be conducted to assure no escape of heavy metals, trace elements, and acids to the river as the result of metal operations, handling, cleaning, washing down, etc.

TRUSTEES

MR. V. PETER CLINE
MR. H. STANLEY DEMPSEY
DR. DON L. EICHER
DR. JOHN W. MARR
MRS. ELIZABETH N. PAEPCKE
MR. RICHARD H. POUGH
MISS AMY ROOSEVELT
MR. RALPH SARGENT, JR.
DR. OAKLEIGH THORNE, II
MR. CON D. TOLMAN
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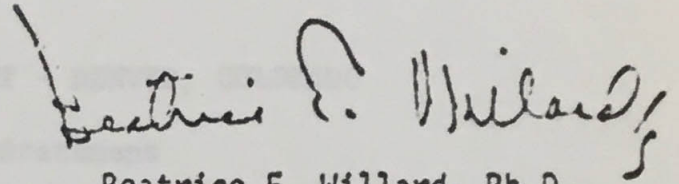
FELLOWS

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MR. FRED B. FARR
DR. FRANK B. GOLLEY
MR. ROGER P. HANSEN
MR. DONALD W. HOAGLAND
DR. ALBERT W. JOHNSON
MR. ROBERT O. LEE
MR. ROBERT B. LEWIS
MR. JOHN P. MERRIAM

MR. FRANK H. MORISON
DR. WILLIAM S. OSBURN, JR.
DR. HORACE F. QUICK
DR. S. DILLON RIPLEY
MR. OAKLEIGH L. THORNE
MR. EDWIN THORNE
MRS. ELIZABETH C. TITUS
DR. GEORGE TREICHEL

Thank you very much for the opportunity to review this impact statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Beatrice E. Willard". The signature is fluid and cursive, with a large, stylized "B" and "W".

Beatrice E. Willard, Ph.D.
President

BEW:sjs

Prepared by
Division of the Fiscal
Department of the Treasury
Budget Unit
330 West Collins Avenue
Denver, Colorado 80202

February 1, 1973

Prepared for
U. S. Department of the Treasury
Tax Treasury Building
Washington, D. C. 20520

CONSTRUCTION OF NEW UNITED STATES MINT - DENVER, COLORADO

Final Environmental Impact Statement

Prepared by

**Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204**

February 2, 1973

Prepared for

**U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220**

NEW UNITED STATES MINT
DENVER, COLORADO

() Draft

(X) Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.

1. Name of Action: (X) Administrative () Legislative
2. Description of Action: Construction of a combination of high-bay one story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space will be about 700,000 square feet. Proposed location is in Denver along the South Platte River from about Eighteenth Avenue to Speer Boulevard. The proposed action would assure the required production of high quality coins for the United States.
3. Environmental Impacts
 - a. Favorable Environmental Impacts: The proposed facility should have a favorable effect on the aesthetics of the site and provide appropriate land use of the proposed site.
 - b. Adverse Environmental Impacts: Adverse environmental impacts of the project are (1) the increase in automotive traffic in the site vicinity resulting from the operation of the new facility, (2) the requirement to relocate four commercial enterprises and about twenty families, and (3) the various normal short-term impacts during the construction period. In addition, the proposed site is in a flood plain, which would have serious implications if the Chatfield Dam, upstream of the site on the South Platte River, were not completed as scheduled. Potential flooding will require special attention in the detailed design of the facility.
4. Alternatives: Alternatives considered include:
 - a. Continuation of the operation of the present Denver Mint without constructing a new facility.
 - b. Construction of a new mint at some other location.
5. Written comments on the Draft Statement for this proposed project have been received from the following agencies:

Environmental Protection Agency
Department of Agriculture
Soil Conservation Service
Forest Service
Department of Commerce
Department of Defense, Army Corps of Engineers

5. Written comments received from the following agencies (Cont'd.):

Department of Housing and Urban Development
Department of the Interior
Missouri Basin Region
Bureau of Mines
Geological Survey
Department of Transportation, Federal Highway Administration
Advisory Council on Historic Preservation
Office of Economic Opportunity
State of Colorado Division of Commerce and Development
State of Colorado Department of Health
State of Colorado Department of Highways
State of Colorado Division of Wildlife
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
Urban Drainage and Flood Control District
City and County of Denver
Board of Water Commissioners, City and County of Denver
Thorne Ecological Institute

6. Dates on which statements made available to Council on Environmental Quality and the public:

Draft Statement - August 9, 1972
Final Statement - February 2, 1973

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Appendix A - Map of Site Area

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ENVIRONMENTAL IMPACT STATEMENT
NEW DENVER MINT
DENVER, COLORADO

1. Description of the Proposed Action

1.1 Project Description

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be twelve billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 7.7 billion coins per year by 1980. The present Denver Mint has a capacity of 4.0 billion coins per year. Building space and outside areas in the present United States Mint institutions are saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The proposed new mint will have the mission of producing domestic coins ranging in denomination from 1¢ to 1\$, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint will perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

(a) Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, up-setting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

(c) Administrative Support Functions

Mint Staff (Superintendent and Deputy Superintendent,

Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment in December 1977. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1979.

The new mint is being planned for year 1980 production capacity of 7.7 billion domestic coins per year and 35 million proof coins and medals per year, on the basis of operating the facility two shifts per day, five days per week, 240 days per year, except that the melting and casting of metal and metal alloys is planned for three shifts per day. The new mint will be designed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (a) A site consisting of a minimum of 25 acres.
- (b) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which will provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, to be in harmony with and to enhance the area where it is located, and in appreciation of the important tourist aspects of the facility.

The proposed site for the new mint is in Denver, along the west bank of the South Platte River between the South Platte and the Valley Highway (I-25), and extending from about Eighteenth Avenue to Speer Boulevard. (See attached map, Appendix A, and attached aerial photograph, Appendix B).

Authority for a mint at Denver is contained in 31 U. S. Code 261, which reads as follows:

"The different mints and assay offices shall be --

"First. The mint of the United States at Philadelphia.

"Second. The mint of the United States at Denver.

"Third. The United States assay office at New York.

"Fourth. The United States assay office at San Francisco."

1.2 The Existing Environmental Setting of the Proposed Site

The proposed site consists of about 30 acres bordered by the official Platte River alignment on the east and Highway I-25 (Valley Highway) on the west. The northern section is laid out in streets and blocks along Water Street. This is a small portion of very old Denver which is occupied presently by four partial blocks of housing in relatively poor condition and four structures that have been renovated to house businesses. The southern section was originally used as a railroad marshaling yard. The City of Denver is using this southern 14 acres for road equipment and voting machine storage.

A rail spur runs along the bank of the river for the entire length of the property. This spur serves customers, both north and south of the site. This more or less permanent trackage tends to make the land industrial rather than residential. This existing rail spur is advantageous, as regards the proposed mint, as it is desirable to have rail access to the mint for delivery and shipment of large quantities of metal, coin blanks and scrap.

Access to the site is available from the Valley Highway at the south at about Nineteenth Avenue and in the center at Twenty-third Avenue onto Water Street, which passes through the northern section and continues on north. There is access from the Speer-Valley Highway at the north end by going south on Water Street. The Valley Highway may be crossed from the west by an underpass at Seventeenth Avenue, a bridge over the Valley Highway at Twenty-third Avenue, and at Speer-Valley interchange.

There is no appreciable landscaping in the area. The Valley Highway right of way has been recently landscaped, but the trees are still small. There are several old trees scattered about the northern portion of the area. There are some vacant lots and open fields in the area, and existing lawns are maintained at minimum levels.

To the north of the proposed site, beyond the Speer Boulevard viaduct, is the Forney Museum, housed in a former gas generation plant. This is of historic significance and will probably be permanent. There are industrial plants to the south, isolated from the proposed area by the Valley Highway. Immediately to the west and across the Valley Highway is the Denver Mile High Stadium. North of the stadium is a new high-rise Holiday Inn. North of this in the vicinity of the Speer-Valley interchange is a new, large multistoried office building complex.

The area across the river and east of the site is a rail yard. This very unsightly area is proposed as a park by the City of Denver in their South Platte Development Project. *

* This document may be obtained from the City and County of Denver Planning Office, 1445 Cleveland Place, Denver, Colorado 80204. It, and other reports, letters, etc. referred to in this Environmental Statement, are available for inspection in the office of the Facilities Project Manager, Bureau of the Mint, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

Power, gas, water, and drainage lines cross the site feeding other areas. These facilities are discussed in detail in paragraph 2.5, Relocations of Utilities.

The primary changes envisioned in the immediate vicinity of the site are contained in the Denver Planning Office's proposed South Platte Development Project. This project includes an extension of the Auraria Educational Complex to the east and a Platte River Park between Auraria and the river (presently rail yards). West of the site, across the Valley Highway, the project includes plans for completion of a sports complex, including enlargement of the present stadium and construction of a large indoor arena. Thus, the proposed mint site is in the center of a large area which is in the process of being upgraded.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River - Cherry Creek Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively low, as it is immediately adjacent to the Platte River. This low level provides some protection from winds; however, whatever smog collects in Denver tends to settle along the river.

The soil conditions at the surface of the projected site are variable. Bed rock (Upper Dawson Formation) exists at the river bottom level, some 10 to 25 feet deep. The natural material covering the bed rock consists of combined gravel and clay-like material washed down to the stream plain from the higher ground to the west. Some of the area has been filled; some of it was dump area. The whole site slopes to the east and drains into the river. There are no swamps or marshlands.

Wildlife species in the area include muskrats, mink, skunks, raccoons, mice, feral house cats, song birds, doves, waterfowl and other migratory birds. Fish species include channel catfish and some other varieties.

2. Probable Environmental Impact of the Proposed Action

It has been concluded that construction of a new mint on the proposed South Platte River site would have some significant effects on the environment - both beneficial and adverse. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows.

2.1 Physical relationships to the immediate area and to the City and County of Denver

The location is in harmony with the South Platte Development Project, as proposed by the Denver Planning Office. The mint buildings proposed for the project would replace the city voting machine and road construction equipment storage facilities on the southern portion of the site, and the approximately thirty residences (some of which are presently vacant) and four businesses on the

northern portion of the site. The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver. The new mint, while not planned as a monumental structure, will be tasteful and imposing, and the buildings and landscaped areas should complement the proposed Platte River Park and the Auraria complex to the east, the stadium-arena, motel and other commercial developments on the higher ground to the west, and the industrial developments along the north-south axis of the Platte River.

The site is presently zoned "BA-2, Motels" (southern portion) and "I-1, Medium Industrial" (northern portion) under the zoning plan of the City and County of Denver. From an environmental standpoint, the suitability of the site for residential purposes is considered to be poor, primarily because of the heavy automobile traffic in the vicinity, particularly on the Valley Highway. This heavy traffic also has a degrading affect with respect to use of the area as a park. The more protected area of about the same size, directly east of the site and across the Platte River, has been designated as a public park in the Denver Planning Office Program.

The proposed location of the new mint is in the approximate center of the Metropolitan Denver area and also is in relatively close proximity to existing and planned low and moderate income housing in Denver. The proposed site is a short distance from the present Denver Mint on West Colfax Avenue, and relocation to this site would have little effect on the housing situation for present and potential mint employees.

Use of the South Platte site would require considerable demolition of existing structures and the relocation of approximately twenty families and four commercial enterprises to other areas. The City and County of Denver plans to acquire the private property in the area for later transfer to the Federal Government, along with the real estate already owned by the city. In acquiring the property and assembling of the site to be conveyed to the United States, the City and County of Denver would be required to undertake the obligations imposed by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) with regard to providing fair and reasonable relocation payments and assistance to eligible displaced persons. Specific plans for those families displaced by the project would be developed at a later date by the City and County of Denver working in conjunction with the Department of Housing and Urban Development and the Denver Urban Renewal Authority.

Even though the displaced parties are provided assistance and compensated financially, the relocations would cause considerable inconvenience and disruptions of the activities and interests of the people involved.

The proposed project would have little impact on historic,

resources. The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property on, or in the vicinity of, the proposed site for the new mint is affected by the project. After review of the Draft Environmental Impact Statement for this project, the State Historical Society of Colorado provided the following comments:

"Dear Mr. Rhea:

As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,"

/s/ Stephen H. Hart
Stephen H. Hart
Colorado State Liaison Officer

The present Denver Mint, as Mr. Hart states in his letter, is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

It is believed on balancing the factors discussed above that locating the new Denver Mint at the proposed site would be a beneficial land use.

2.2 Transportation of materials, employees, and visitors into and out of the project

While overall access to the site is excellent, there would be problems involved in adding to the traffic load on the Valley Highway (I-25) and the other access roads in the vicinity. The additional traffic load would consist of three distinct elements as follows: private automobiles of mint employees; commercial vehicles handling shipments into and out of the facility; and tourists' private automobiles and busses. Traffic loads for mint employees' private automobiles would be approximately 175 cars inbound for the start of the morning shift (presently at 7:00 A.M.), 100 cars inbound at about 8:00 A.M., 175 cars in and 175 cars out during the mid-afternoon shift change (presently at 3:00 P.M.), 100 cars out at about 4:30 P.M., and 175 cars outbound at the end of the second shift (11:00 P.M.). The shift changes would be adjusted to avoid peak traffic periods in the site vicinity. The 15 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush hour traffic. Tourist traffic averaging 300 cars and 5 busses daily would naturally occur during nonpeak traffic periods, as visitor hours would be from 9:00 A.M. to 3:00 P.M. daily. All of this additional traffic would not use the Valley Highway, but there would be an increase in traffic on this heavily used corridor (105,800 vehicles in the site vicinity on an average weekday in 1971). The mint traffic would terminate in its own parking areas on site and thus would not add to parking congestion in the vicinity.

Several transportation proposals in the proposed site area are under planning development at this time by the Regional Transportation District, the Colorado Department of Highways and the Federal Highway Administration. These proposals and plans, and the planning for the new mint, will require that joint planning and thorough coordination among the agencies involved would have to be accomplished so as to assure consistency in planning and the least environmental impact. These are matters of detail which can be resolved by the agencies involved during the specific design of the new transit facilities and the detailed design of the new mint. Transportation matters which would require detailed coordination in the design phase are:

- a. The rerouting of Water Street around the western border of the site.
- b. The reconstruction of the interchange at the eastern end of the Twenty-third Avenue bridge to accommodate the exit and entrance ramps to Valley Highway, Water Street, and an entrance to the proposed mint site.
- c. The location of the proposed Market-Blake Parkway and its interchange with the Valley Highway at the south end of the projected mint site.
- d. The location of the proposed personalized rapid transit

(PRT) "People Mover", connecting downtown Denver and the Mile High Stadium - new arena complex, including the construction of a station in the vicinity of the new mint.

e. The location of a frontage road parallel to the Valley Highway from Colfax Avenue to the west Thirty-eighth Avenue interchange.

2.3 Flood plain aspects of the proposed site

A detailed review of the flood plain implications of the proposed South Platte River site for the new mint has been completed by the Treasury Department. The following are the actions taken in this review and the conclusions resulting therefrom:

a. Letters from the Omaha District Corps of Engineers to Mr. Gregory Cavanagh, Regional Director, Public Building Services, Region 8, General Services Administration, dated 16 July 1971 and 23 July 1971, were analyzed in detail. These letters, and particularly the 23 July 1971 letter, confirmed that the 1965 flood approximated a 100-year flood and that during this flood the water reached elevation 5,190 adjacent to the center of the proposed site. (The ground adjacent to the river at the center of the site is at approximate elevation 5,188. The topography of the site varies, of course, with elevations increasing in the upstream direction and away from the river. Thus, during the 1965 flood, before the start of construction of the Chatfield Dam, approximately 30 percent of the site was flooded, with water depths varying from 0 to 36 inches.) These letters also state that, with the Chatfield Dam in operation, a 100-year flood would be confined within the river's banks and would reach elevation 5,182, and a "standard project flood", as defined by the Corps of Engineers, would reach elevation 5,189, both elevations at the approximate center of the proposed site. (With the Chatfield Dam in operation, the 100-year flood would not inundate any portion of the proposed site. The standard project flood would inundate approximately 25 percent of the site, without any corrective measures. See paragraph 2.3e(2) below for a discussion of planned protective measures).

b. A call was made to Mr. R. G. Burnett, Chief, Engineering Division, Omaha District, Corps of Engineers, on 11 April 1972. Mr. Burnett confirmed that the Chatfield Dam, now under construction, is scheduled for closure in late summer 1973, and that Mt. Carbon Dam on Bear Creek is now under design, with funds available for acquisition of land required for this project. Mr. Burnett said he would have his flood plain official, Mr. Gau, review the specifics of this particular site.

In response to a specific question, Mr. Burnett provided the following Corps of Engineers' definition of a standard project flood:

"The standard project flood is representative of the critical concentration of runoff from the most severe combination of precipitation and snow melt, if pertinent, that is reasonably characteristic of the drainage basin involved."

Mr. Burnett stated further that the Corps does not associate a specific frequency with a standard project flood, but that such a flood is representative of the largest flood reasonably expected to occur and would be exceeded only on rare occasions. (Thus, the expected frequency of occurrence is much less than once in a hundred years. A standard project flood is more in the order of a 250-500 year flood).

c. On 12 April, Mr. Gau, Chief of Flood Plain Management, Omaha District, Corps of Engineers, provided further information relative to the proposed site. Mr. Gau made reference specifically to a document entitled, "Flood Plain Information Study, South Platte River Basin, Colorado, Denver Metropolitan Region, Updated August 1968", that the Corps of Engineers had done on the South Platte River and stated that a copy of this study was available in the office of the Colorado Water Conservation Board in Denver. Mr. Gau also stated that this flood plain study provided the current information with respect to the proposed Denver Mint site. He reiterated the information provided the previous day by Mr. Burnett and added that the Mt. Carbon Dam effect on reduction of flood water elevations at the proposed site would be on the order of one foot. Mr. Gau stated that the Chatfield Dam is the prime contributor to flood reductions in this particular reach of the South Platte and thus any uncertainties with respect to completion of Mt. Carbon Dam are not material.

d. The Corps of Engineers' flood plain study referred to above was reviewed in the offices of the Colorado Water Conservation Board. The study contains a general statement that it reflects reduced discharges resulting from the operation of the Chatfield and Mt. Carbon Dams. The study also has the following notes on the cover page:

(1) The 1965 flood has been included in the updated hydrologic analysis and has increased the basic discharges for a given flood frequency.

(2) An intermediate regional flood is a flood having a one percent probability, or an average frequency of once in 100 years.

The following surface water elevations were extracted from the graphs and maps included in the subject Flood Plain Study:

Elevations

	<u>Standard Project Flood</u>	<u>Intermediate Regional Flood</u>
Drop Structure (vicinity of upstream end of proposed site)	5,193	5,187
7th Street bridge (near site center)	5,189.5	5,182
Speer Blvd. (downstream end of site)	5,185	5,178

e. Further analysis of this matter revealed the following:

(1) The 100-year flood, with the Chatfield Dam in operation, would be confined within the banks of the South Platte River at the site. In effect, this situation means that the site with existing elevations has a very high flood damage protection factor.

(2) Also, with the Chatfield Dam in operation during a standard project flood there would be flooding of a small portion of the site as it exists, immediately adjacent to the river. Because of the configuration of the site and the large size of the buildings, the proposed mint structures would be located on the higher elevations away from the river. In accomplishing site grading, select fill material would be placed to produce finish elevations under the structures at least three feet above the predicted water elevations of a standard project flood. Further, it is planned to design and construct the new mint so that the lower portions of all structures up to three feet above ground elevations are floodproofed. These measures, in combination with the effect of the Chatfield Dam, would provide protection such that the possibility of flood damage is extremely remote.

(3) The proposed site would be used essentially as it exists with respect to the flow of the South Platte River, except for the fill planned for placement as discussed in paragraph (2) above. There would be no construction of buildings or other structures which would change the hydraulic capacities of the channel of the South Platte, either during flood periods or normal runoff. The fill which would be required for the proposed construction would reduce flood volume storage by approximately 40,000 cubic yards, an insignificant amount considering the total volume of a South Platte flood.

f. With respect to subsurface water at the site, no unusual problems are anticipated. The ground water table varies proportionately with the water level in the nearby South Platte River. However, all planning to date is based on slab-on-grade construction with the only foreseen requirement for basement or trench areas those necessary to provide space for sanitary sewers and for piping and drains to recirculate process liquids. These basement areas will require special protection from seasonally high water table conditions by proper treatment of basement walls and by installation of sump pumps.

g. In summary, the conclusion is that the new Denver Mint can be constructed on the South Platte River site with an extremely low flood risk factor and with reasonable costs incident to constructing in a potential flood plain.

2.4 Potential pollution from air, water, solid wastes, noise and visual

Due to the nature of the industrial operations planned to be performed in the new mint, there are potential pollution problems associated with the construction and operation of the facility. All of these potential problems will be analyzed in great detail during the

design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring advanced state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint be designed and constructed to comply with the letter and spirit of all local, state and federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint will be equipped with the most modern and efficient pollution measurement and prevention systems and equipment available, so that the plant will serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will perform to comply with the standards for air and water quality, in accordance with the provisions of Executive Order 11507, dated February 4, 1970.

Following is a listing of these potential problems and a discussion of planned systems and procedures for eliminating and reducing the potential pollution:

a. The new mint will generate some fumes from its metal melting and casting operations. If steam cannot be purchased from the existing Zuni Plant of the Public Service Company of Colorado, fumes would be generated by the mint heating plant.

Comment: All air extruded from the plant will be cleaned by electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, state and national standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards.

b. Chemical effluent will be produced from the assay laboratory, the blank cleaning operations and from the heating plant. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses.

Comment: All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. The treatment facility involved, plus sanitary sewage systems in the new mint, will be protected to preclude the possibility of contamination of the South Platte River through leakage or flooding. Discharges from the mint, if any, into either sanitary sewers or the South Platte River will comply with the Water Quality Standards of the Colorado Department of Health. Any discharges into the South Platte River will be monitored continuously.

c. There is a theoretical potential for thermal water pollution because of the requirements for cooling water for the melting and rolling operations.

Comment: Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of the cooling towers to avoid fog-producing conditions.

d. There will be solid wastes generated from numerous sources within the operations, with also the necessity during the construction period to remove (1) materials from demolished existing structures, (2) trees and other plant growth, and (3) perhaps some unsuitable materials.

Comment: Solid wastes will be processed within the plant, with major quantities of scrap metals being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to the city dump. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, state and federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control. Particular attention will be applied to surface drainage control during the construction phase to prevent erosion and to prevent any increase in turbidity in the South Platte River.

e. There will be some noise and visual pollution, particularly during the construction phase, with a potential for noise and visual pollution after project completion, if adequate precautions are not adopted.

Comment: Noise from operation of construction equipment and pile driving is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic on the Valley Highway. Operational noise and visual pollution potential at the new mint will be eliminated by designing buildings with internal and external noise level controls, and by construction of sufficient enclosed storage facilities so that metal and other supplies will not be stored in outside open areas, as in the case at the present Denver Mint. This would have the effect of removing a relatively minor noise and visual pollution source from the downtown Denver area.

f. There will be some air pollution in the site vicinity due to the increased automotive traffic previously discussed. This additional traffic is primarily a transfer of traffic, and its resultant effects, from the area of the present Denver Mint, a more downtown and congested location.

Comment: Elimination of the air pollution caused by the added

automotive traffic is dependent upon improvements and expansions in mass transit systems in the Denver area, and technical improvements to reduce or eliminate polluting emissions from automotive vehicles.

2.5 Relocations of utilities

Electric power, gas, water, sanitary sewer and storm drainage lines cross the site, feeding or servicing other areas. These facilities are planned for utilization in providing utilities services to the new mint. These lines, a 115 KV power line, a 12-inch water line, a 16-inch gas line, a sanitary sewer and four storm sewers, will require relocation. A proposed new 72-inch sanitary sewer being designed by Denver Metropolitan Sanitary District Number One will have to be located through the site in such manner as to avoid mutual interference of the sewer and mint functions. Rerouting of the 115 KV power line and placing it underground will improve the aesthetics of the area. The other relocations will not change the environment. They will have to be accomplished without interrupting service. Runoff from the site, and from the approximately 800 acre tributary drainage basin to the west of the site, will be drained by swales, culverts and storm drains to discharge into the South Platte River. All improved areas of the completed facility will be landscaped with trees, shrubbery and ground cover to provide acceptable control of erosion and silting.

2.6 Interaction between man and wildlife

As noted in the last paragraph of Section 1.2 of this environmental impact statement, there are small populations of several species of fish and wildlife in the proposed project area. Some of these species are desirable and beneficial, particularly the catfish in the South Platte River. Some species are not desirable and may, in some instances, be harmful to man and to other species. The Department of the Interior, in commenting on the Draft Environmental Impact Statement for this proposed project, noted that, at times, some of the species are found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. Department of the Interior comments also stated that the new mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change and concluded that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area. The Colorado Division of Wildlife, after review of the proposed project, commented that, "This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area."

3. Probable Adverse Environmental Effects Which Cannot be Avoided Should the Project be Implemented

Adverse and unavoidable environmental impacts of the proposed project are (1) the increase in automotive traffic which its operations will bring to the area, (2) the relocation of people and commercial enterprises,

and (3) the various normal short-term impacts of the construction period and its traffic additions.

The increase in automotive traffic in the site area will be caused by the passenger car traffic of the 850 personnel who will work at the facility, by the daily average of 15 trucks making deliveries and pickups, and by busses and private cars bringing tourists to the mint. The automotive traffic will cause some additional air and noise pollution and traffic congestion, particularly on U. S. Interstate Highway I-25. The major portion of the added passenger traffic will be during nonpeak traffic periods, as the work shifts and tourist visitation periods at the mint will be regulated to avoid these traffic peaks. Also, truck traffic to and from the site will be controlled to minimize peak traffic period additions. The additions of automotive traffic in the area of the new mint will be counterbalanced by the elimination of about 50 percent of the same volume of automotive traffic in the area of the present Denver Mint at 320 West Colfax Avenue, a more downtown Denver location.

It will be necessary to relocate four commercial enterprises and approximately twenty families from the area. This relocation is unavoidable. The persons and businesses involved will be compensated fairly and justly in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646 (84 Stat. 1894 42 U.S.C. 4601).

The major environmental impacts of the construction period will be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project will include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

4. Alternatives to the Proposed Action

These alternatives may be considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

Regarding the location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that Denver is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other major coin production facility, the Philadelphia Mint.

b. Denver is an excellent transportation center, with good trucking facilities available for shipping coins to the West Coast, as well as the Mid-West and points East as required. Transportation rates to Eastern points are favorable, as many trucks delivering to the Denver area return East empty.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are available at favorable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in Denver has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (25 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the site located on the west bank of the South Platte River between the Valley Highway (I-25) and the river, and extending from Eighteenth Avenue to the Speer Boulevard interchange, has been selected tentatively for the following reasons:

a. The site is adequate from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, etc.) for the proposed new mint.

b. The mint at this location would be in harmony with the South Platte Development Project as proposed by the Denver Planning Office. The construction would complement the activities being undertaken through Urban Renewal in the Auraria and Skyline projects.

c. The site has considerable aesthetic potential to provide a distinctive, dignified setting for the mint.

d. The central location is generally favorable regarding availability of low and medium-cost housing and accessibility by employees using public transportation. (The latter should improve with time).

e. The relatively downtown Denver location is advantageous for attracting tourists, an important consideration for the Bureau of the Mint and for the City of Denver.

Other locations in the Denver area were considered and have been eliminated from consideration at this time because of undesirable factors in comparison to the tentatively selected South Platte River site. The sites considered and the prime reasons for elimination are:

a. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the Twenty-third Avenue South Platte site.

b. University Boulevard at Valley Highway (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been made available by the City.

c. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the Gates Rubber Company, currently using the area, is expanding its operation and is not interested in selling the property.

d. York Street between Fortieth Avenue and Forty-third Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate aesthetic environment for the mint.

e. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

f. Park Hill Golf Course.

The Park Hill site has much to recommend it, but it is not particularly suitable for the new mint because of its setting near a residential area. The additional traffic and industrial operations

would degrade the area. Preserving this site as open space is desirable.

g. Nome Street between Thirty-seventh Avenue and Fortieth Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Sites outside the City of Denver.

These were considered, particularly locations at Rocky Mountain Arsenal and the Denver Federal Center, but they were eliminated because they would not have the advantage of assisting in the Urban Redevelopment of Denver.

5. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enforcement of Long-Term Productivity.

Cumulative and long-term effects of the proposed project might be assessed in terms of land use at the site and coining operations for the people of the United States. As stated earlier, the long-term suitability of the site for uses other than industrial operations is poor. The highways and roads on three sides produce a traffic and noise environment that is not compatible with residential or park-type uses.

A new mint on the site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean, mechanized facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the area should occur, assuming existing controls for preservation of the environment during construction are exercised. Generally, the proposed facility should result in an enhancement of the area in conformance with adjacent developments and planned land uses.

6. Any Irreversible and Irretrievable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented.

The proposed project is compatible with other developments in the vicinity. The land area is already zoned in part for motels and in part for medium industrial activities. The change to larger buildings on the site will result in more open space, and landscaping proposed will significantly increase the amount of green space. No historical or archaeological sites will be destroyed, nor will there be unalterable disruptions to the environment.

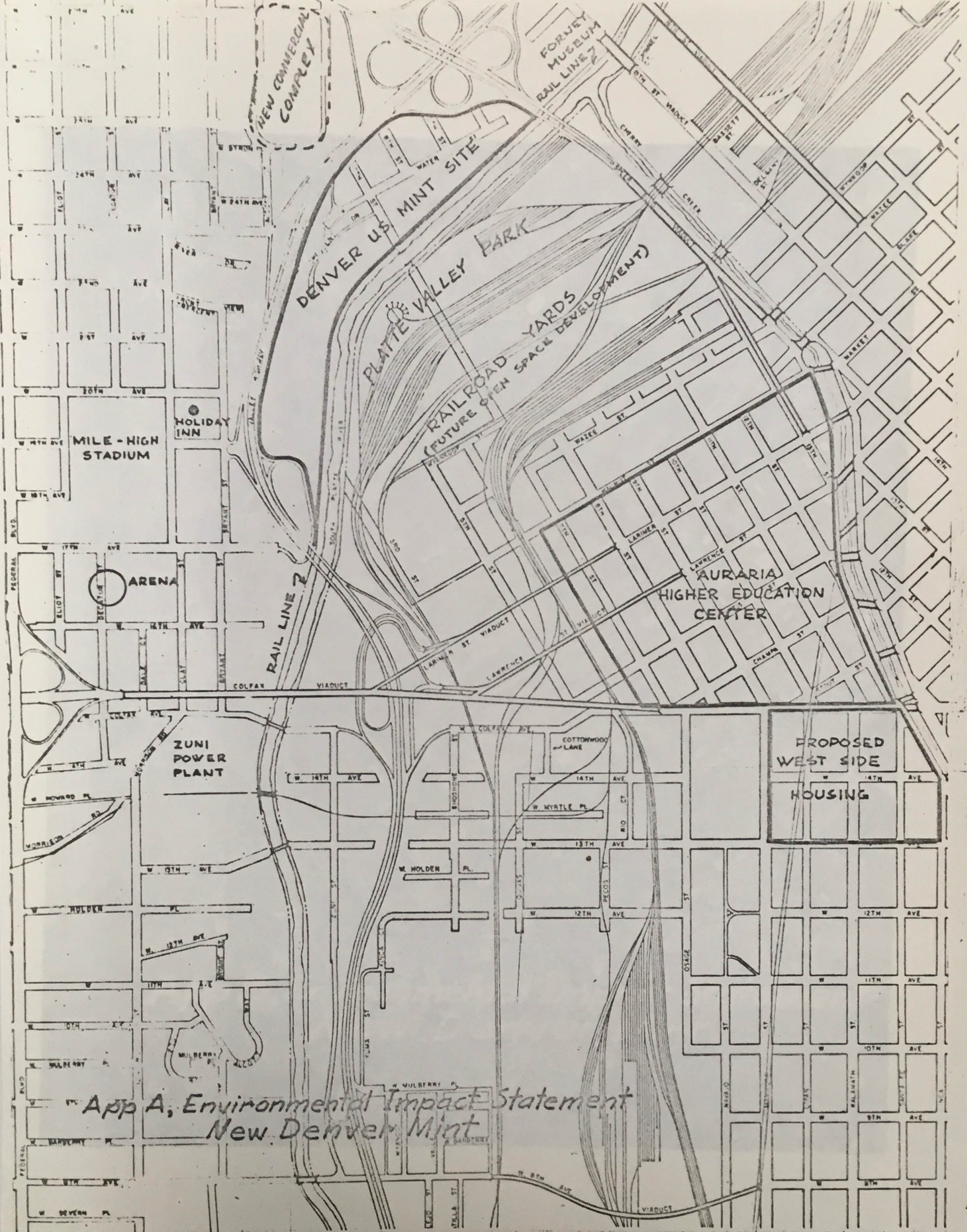
Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

7. Problems and Objections Raised by Other Federal, State, and Local Agencies and by Private Organizations and Individuals.

No federal, state, or local agency, private organization or individual has expressed any opposition in substance to this proposed project. On the contrary, the comments of local, state, and federal agencies basically have been favorable to the project. The Environmental Protection Agency's letter of comment states that, "In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection." Other comments expressing general agreement/lack of objection have been received from the City and County of Denver, the Department of Defense, the Department of Housing and Urban Development, the Department of the Interior, the Colorado State Department of Highways, the Regional Transportation District, the Colorado Division of Wildlife, the State Historical Society of Colorado and the Denver Board of Water Commissioners. Comments from these agencies and from other agencies and organizations are attached hereto in Appendix C.

Some comments received on the proposed project did present concern regarding aspects of (1) preventing air and water pollution, (2) joint planning and coordination in the resolution of vehicular traffic problems, and (3) the availability of low and moderate income housing. The discussion of these matters has been expanded in the appropriate sections of this final statement from that presented in the draft statement in an attempt to resolve the issues raised in the various comments.



NEW COMMERCIAL COMPLEX

FORNEY MUSEUM
RAIL LINE 2

DENVER US MINT SITE

PLATTE VALLEY PARK

RAILROAD YARDS
(FUTURE OPEN SPACE DEVELOPMENT)

MILE-HIGH STADIUM

HOLIDAY INN

ARENA

AURARIA
HIGHER EDUCATION
CENTER

ZUNI
POWER
PLANT

PROPOSED
WEST SIDE
HOUSING

App A, Environmental Impact Statement
New Denver Mint



*App B, Environmental Impact Statement
New Denver Mint*

Environmental Protection Agency

U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C. 20460

September 29, 1971

Re: ANIS

Mr. Frank W. Shea
Facilities Project Manager
Bureau of the Mint
Denver Mint
125 West Colfax Avenue
Denver, Colorado 80202

APPENDIX C

Dear Mr. Shea:

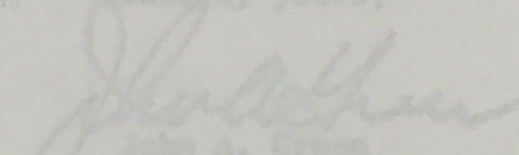
Attached hereto are copies of all comments received on the Draft Environmental Statement for the proposed new Denver Mint. These comments are arranged in the same order as listed in paragraph 5 of the Summary Sheet for this Final Environmental Impact Statement.

Anticipated environmental impacts in a satisfactory manner. We suggest, however, that the third sentence of paragraph "F" on page 9 be revised to indicate that subsurface water seepage, and not process liquids, will be discharged as effluent into the South Platte River.

In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection.

We appreciate the opportunity to review this statement, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Sincerely yours,


John A. Green
Regional Administrator

ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

SUITE 900 1860 LINCOLN STREET,
DENVER COLORADO 80203

September 25, 1972

Ref: AWIE

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

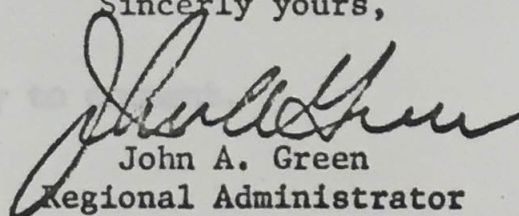
Dear Mr. Rhea:

The Environmental Protection Agency has reviewed the draft environmental impact statement for the proposed new Denver Mint. In general, the draft statement describes the project and the anticipated environmental impacts in a satisfactory manner. We suggest, however, that the third sentence of paragraph "f" on page 9 be revised to indicate that subsurface water seepages, and not process liquids, will be discharged as effluent into the South Platte River.

In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection.

We appreciate the opportunity to review this statement, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Sincerely yours,



John A. Green
Regional Administrator

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

P. O. Box 17107, Denver, Colorado 80217

September 8, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the Draft Environmental Impact Statement for Construction of the New U. S. Mint, Denver, Colorado.

The statement is well prepared and appears to adequately cover the requirements of N.E.P.A.

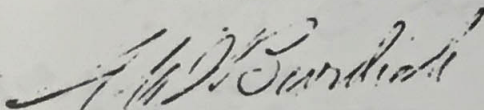
Our primary comment relates to Section 2.4, page 9 of the Statement. We believe the statement concerning pollution prevention and site protection during construction might be strengthened.

We have found that, while no laws or regulations appear to be violated, there is a serious problem in the Denver area caused by erosion from urban development sites. Because of the proposed Mint site location on the banks of the South Platte River, site erosion could degrade the River if proper protection is not afforded during construction.

In regard to the last sentence in Section 1, page 4; we bring to your attention the fact that recently a chemical company in the site area was fined through EPA action for killing fish in the South Platte River with an industrial discharge. Apparently, the fish in the South Platte are considered significant wildlife.

Thank you for the opportunity to comment.

Sincerely,



M. D. Burdick
State Conservationist



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ROCKY MOUNTAIN REGION
BUILDING 85, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO

1940

September 26, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

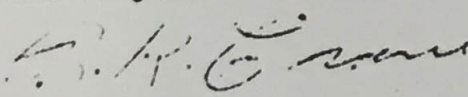
Dear Mr. Rhea:

Thank you for the opportunity to review the Draft Environmental Impact Statement for the proposed construction of the new United States Mint - Denver, Colorado.

I recommend that the visual impacts from important vantage points be evaluated and considered in the plans. This might involve coordinated planning between this area and the South Platte Development Project to create visual harmony.

The proximity of Interstate 25 needs to be considered from the standpoint of noise and chemical pollution potential. I suggest Department of Agriculture Bulletin #246 "Trees and Shrubs for Noise Abatement," which is enclosed.

Sincerely,


W. J. LUCAS
Regional Forester

Enclosure



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

ROCKY MOUNTAIN REGION
BUILDING 85, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO

1940

September 26, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

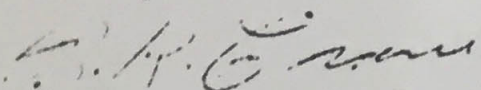
Dear Mr. Rhea:

Thank you for the opportunity to review the Draft Environmental Impact Statement for the proposed construction of the new United States Mint - Denver, Colorado.

I recommend that the visual impacts from important vantage points be evaluated and considered in the plans. This might involve coordinated planning between this area and the South Platte Development Project to create visual harmony.

The proximity of Interstate 25 needs to be considered from the standpoint of noise and chemical pollution potential. I suggest Department of Agriculture Bulletin #246 "Trees and Shrubs for Noise Abatement," which is enclosed.

Sincerely,



W. J. LUCAS
Regional Forester

Enclosure



THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

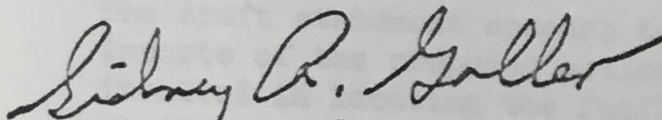
September 18, 1972

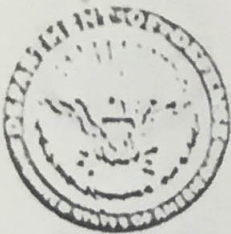
Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Unit
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for your August 7, 1972, letter to the Economic Development Administration which transmitted the draft environmental impact statement for the proposed new Denver mint. The Department of Commerce has reviewed the document and has no comment.

Sincerely,


Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs



DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
7410 U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

MROED-PE

12 September 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

I refer to your letter of 4 August 1972 transmitting the Draft Environmental Statement for Construction of New United States Mint - Denver, Colorado.

The draft statement appears to adequately discuss the environmental impacts of the proposed action. Your discussion of the problems involved in locating the facility in the South Platte River flood plain is well presented.

We appreciate the opportunity to comment on the subject draft statement.

Sincerely yours,

R. G. Burnett
R. G. BURNETT, P. E.
Chief, Engineering Division



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 1915 AND STOUT STREETS
DENVER, COLORADO 80202

REGION VIII

September 28, 1972

IN REPLY REFER TO:

8M

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Subject: Draft EIS, Denver Mint

Please excuse our delay in forwarding our comments on the subject statement. As you may know, we participated with GSA in the evaluation of many proposed sites in the Denver Metro area. The selected site was one of two sites which we recommended be given top consideration from the point of view of HUD's responsibility and involvement with the City and County of Denver.

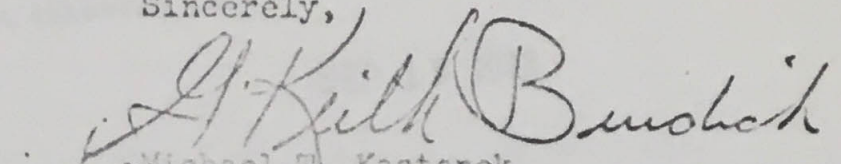
In particular, we believe the selection will compliment Denver's renewal effort and assist in implementing the HUD-funded Platte River planning objectives. It is also our opinion that your statement on Page 13, Paragraph d, concerning the availability of low and moderate income housing to be accurate and significant.

Our only concern with your draft statement is on the matter of relocation benefits for those businesses and persons to be displaced from the site. As you may know, the Colorado Relocation Assistance Act of 1971 relates to Federally-assisted projects carried out by the state, or a state agency. It does not require any payment of any relocation benefits for nonfederally-assisted displacement activities. We believe that since the City and County of Denver is acting as the agent for the Bureau of the Mint, and displacement will occur after the site selection by your Bureau, the provisions and limitations of the Uniform Relocation and Property Acquisition Act of 1970, (PL-91-646), will apply as described in Section 208 of Title II of the Act.

As you may know, the Denver Urban Renewal Authority has been designated the central relocation agency in the city, and we recommend that you contact them. They should be in a position to assist you in complying with the requirements of Section 210 of Title II of the Act.

Thank you for the opportunity to review and comment on your Draft EIS.

Sincerely,


Michael T. Kastanek
Assistant Regional Administrator
Community Planning and Management

Mr. [Name]
[Address]
[City, State, ZIP]

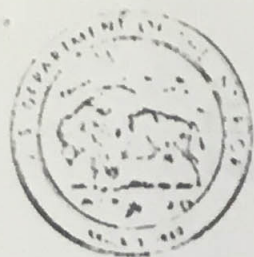
Dear Mr. [Name]:

This is in reply to your request of [Date] for the Department of the Interior for comments on the Draft Environmental Statement for the [Project Name], [Location].

Our general comment is that the environmental impacts are discussed and defined in the statement and appear to be comprehensive. However, some additional discussion is needed on values would be lost to the environment. The statement also mentions wildlife of significance in the area. The following is a listing of the values of the immediate area: [List of values]. [Additional text about environmental impacts and values].

The [Project Name] will have a direct impact on the [Location] environment. The construction of the [Project Name] will directly reduce the [Location] environment. [Additional text about environmental impacts].

Our comments are also the [Location] environment. [Additional text about environmental impacts].



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

E3053

ER-72/959

SEP 19 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in reply to your request of August 4, to the Department of the Interior for comments on the draft environmental statement for the new Denver Mint, Denver, Colorado.

Our general comment is that the statement appears to adequately discuss and define the environment and impacts thereon of the proposed new mint. However, some additional discussion on fish and wildlife values would appear to be appropriate. The statement that "There is no known wildlife of significance in the area." is only partially correct. The following is a listing of the more common species of the immediate site: skunks, raccoons, muskrats, Norway rats, mice, feral house cats, feral pigeons, doves, ducks, starlings, English sparrows and several species of non-game fish in and adjacent to the South Platte River which runs past the proposed Mint site. Several of the above-mentioned species are, at times, found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. This aspect of interaction between man and wildlife should be considered in greater detail.

The new Mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change. For example, construction of the Mint, assuming proper design, will destroy or greatly reduce the rat population of the immediate area. Aesthetic improvement may also result.

Our conclusions are that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area.

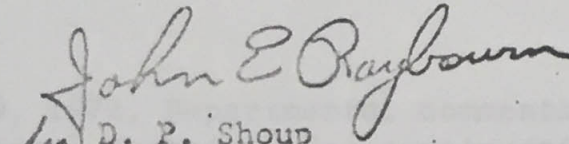
Mr. Frank W. Rhea

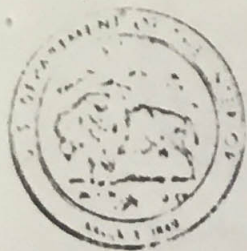
Page 2

Additionally, we believe the conclusion regarding the Rocky Mountain Arsenal as a possible alternative site, under "Alternatives to the Proposed Action" should be substantiated. For example, use of the Arsenal would provide a site without cost to the government, would not entail relocation of houses, businesses and people, and would not have as adverse an impact upon traffic patterns and congestion. Employees and tourist access to such a site would be excellent via three interstate highways, Stapleton Airport, and several railroad lines. We suggest the alternative section discuss the environment of the Arsenal and the impact of constructing the Mint thereon.

We appreciate the opportunity to comment.

Sincerely yours,


for D. P. Shoup
Field Representative



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

ER 72/959

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

September 27, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

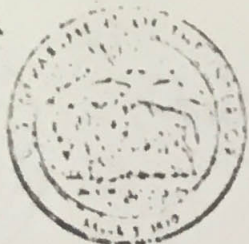
By letter dated September 19, 1972, Departmental comments were provided on the draft environmental statement for construction of the United States Mint, Denver, Colorado. Subsequent to that date, the enclosed comments were received from the Bureau of Mines and the U.S. Geological Survey.

These comments are forwarded for your information.

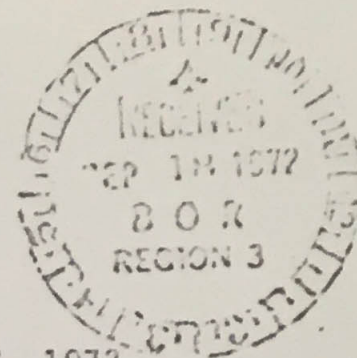
Sincerely yours,

John E. Raybourn
for D. P. Shoup
Field Representative

Enclosures 2



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D.C. 20240



ER-72/959

September 7, 1972

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver, Colorado
Through Assistant Secretary--Mineral Resources *W. J. [unclear]*
SEP 14 1972

From: Director, Bureau of Mines

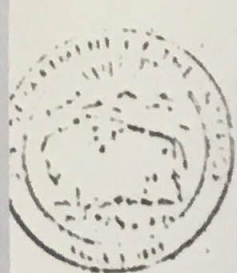
Subject: Draft environmental statement, Bureau of the Mint, construction
of United States Mint, Denver, Colorado

The draft environmental statement for construction of the proposed United States Mint, Denver, Colorado, has been reviewed. The new mint would be constructed on a 30-acre site on the west bank of the South Platte River in the City of Denver between the river and the Valley Highway (I-25) from about Eighteenth Avenue to Speer Boulevard. Proposed construction would include about 700,000 square feet of building space, parking areas, paved vehicular maneuvering area, installation of utilities, and landscaping. The South Platte River site was selected as the most favorable of several considered.

The proposed construction would have no direct effects, adverse or beneficial, on mineral resources. Although not in our area of concern, we believe the site to be a good choice because redevelopment would help bring about enhancement of the general area.

The environmental statement discusses a potential adverse feature of the site in that its location on the South Platte River flood plain could have serious implications if the upstream Chatfield Dam is not completed on schedule.

Elbert [unclear]
Director



United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICE OF THE DIRECTOR

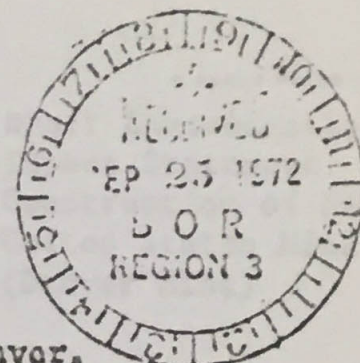
ER-72/959

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver,
Colorado

From: Director, Geological Survey

Subject: Review of draft environmental statement on new Denver Mint,
Denver, Colorado



We have reviewed the subject draft environmental statement as requested in a memorandum of August 10 from the Director, Office of Environmental Project Review. Our comments are as follows:

The third paragraph on page 4 contains a statement that the bedrock is Pierre Shale. The bedrock of the area is not Pierre Shale, but rather is Upper Dawson Formation.

In reference to sub-paragraph f, page 9, it is very likely that basement areas in the building will require special protection from seasonally high water-table conditions.

The assessment of the flood risk factor contained in sub-paragraph g, page 9, seems to be reasonable, especially considering the soon-to-be completed Chatfield Dam.

Noting Director

cc: Director, PEP, (advance) ✓
Gen. Files
Dir. Chron.
Mr. Coulter, CD
Mr. Davis, WRD

HGStewart:src:9/12/72



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION EIGHT
BUILDING 40, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

October 11, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

IN REPLY REFER TO:

Draft Environmental
Impact Statement
Construction of New
United States Mint
(Denver Mint)

Dear Mr. Rhea:

This is in response to your letter of August 4, 1972, in which you requested Federal Highway Administration review and comments on the Draft Environmental Impact Statement for the proposed new Denver Mint. In accordance with our review procedures, this letter will serve as the consolidated response of the Colorado Division Office and the Region 8 Office.

Except for a couple of minor items our comments will be directed mainly toward the impact upon the highway system.

Appendix A map, although supplemented with Appendix B aerial photo, is a rather outdated version which does not portray a complete picture of the local street system in the vicinity of the proposed project.

The statement, page 6 paragraph 1c, should be deleted as the widening of I 25 through the subject area has been accomplished.

At the top of page 6, (Section 2.2) the statement is made that traffic generated by the proposed project is "relatively negligible when measured against the 105,800 vehicles using the Valley Highway on an average weekday in 1971." The 105,800 vehicles is an accumulation of "relatively negligible" traffic generations, which if allowed to continue will result in the continued deterioration of traffic service. No traffic generator located in this corridor is negligible.

Mr. Frank W. Rhea
October 11, 1972
Page Two

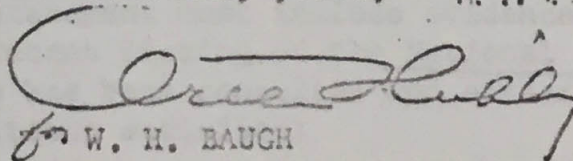
The matter of transportation deficiencies in the corridor of the Valley Highway has been recognized by the Colorado Department of Highways and the Federal Highway Administration and as a result preliminary studies have been programmed to further improve the corridor. We are pleased to note the recognition given in the environmental statement to these deficiencies and of the need for coordination for their resolution. We are particularly concerned as land necessary for the correction of deficiencies is not available within the existing right of way.

One of the Valley Highway's primary inadequacies is the lack of frontage or collector-distributor roads from Colfax Avenue north to the W. 38th Avenue interchange. To correct this will involve revision, elimination or relocation of the closely spaced interchanges at Speer Boulevard, W. 23rd Avenue and W. 19th Avenue. The Colorado Department of Highways has recently submitted a program for project FI 025-2(9) which includes funds for the consideration of environmental impacts and for preliminary engineering studies in this area. Another recently submitted program is for project M 7252(001) Blake-Market Streets, Federal Boulevard to 23rd Street.

With the developments proposed for the subject area and the proximate timing of the Denver Mint proposal and the transportation studies and subsequent proposals, it becomes apparent that joint-development and multiple-use considerations are necessary to assure the most functional project with the least environmental impact.

We welcome the opportunity to comment on the proposal and statement. We offer our continued cooperation and assistance in the development and preparation of the final environmental statement.

Sincerely yours, A. F. LEBY



W. H. BAUGH
Regional Federal Highway Administrator

cc: Colorado Division - 1
TEU (10) - 1
Secretarial Representative - Region - 1
CEQ - 5

ADVISORY COUNCIL
ON
HISTORIC PRESERVATION

WASHINGTON, D.C. 20540

October 5, 1972

Mr. Robert R. Fredlund
Director, Administrative Programs
Department of the Treasury
Washington, D. C. 20220

Dear Mr. Fredlund:

Thank you for the copy of the draft environmental statement prepared by the Bureau of the Mint, Department of the Treasury, for the construction of the New United States Mint - Denver, Colorado. This draft statement was enclosed with your letter of August 28, 1972, as an example of additional materials detailing the Treasury's policy vis-a-vis historic preservation.

In order to alert you to our approach to the review of such statements, and because the present Mint is listed in the National Register of Historic Places, we thought it would be both useful and appropriate for us to give you our informal comments on the statement. Ms. Penny Lianos of your office indicated that you would be interested in such a response.

We appreciate the concern expressed in your letter and in the draft statement for the fate of the present Mint. However, the section referring to the Mint is the only mention of historic resources in the draft statement. There is no mention of the impact of the new Mint on historic resources. The statement would therefore be considered inadequate were it under our formal review. The Council staff would respond by asking for additional information from your agency indicating:

- a. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470(f)). The draft environmental statement must include evidence indicating that the most recent listing of the National Register of Historic Places has been consulted and either of the following conditions satisfied:

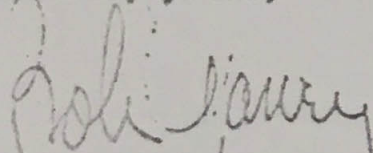
1. If no National Register property is affected by the project, a section detailing this determination must appear in the draft environmental statement.

2. If a National Register property is affected by the project, the environmental statement must contain an account of steps taken in compliance with Section 106 and a comprehensive discussion of the contemplated effects on the National Register property. (Procedures for compliance with Section 106 are detailed in the Federal Register of March 15, 1972, p. 5430.)

- > b. Compliance with Executive Order 11593 of May 13, 1972.
- c. That a comprehensive interdisciplinary study has been made of all archeological, historical, architectural and cultural resources extant in the proposed project area; the effects, if any, on these resources; and an account of steps taken to assure their preservation and enhancement.
- d. Contact with the Historic Preservation Officer for the State or Territory involved. In order to insure as comprehensive a review of historical, cultural, archeological, and architectural resources as possible, the Advisory Council would suggest that the draft environmental statement contain a copy of this officer's comments concerning the effect of the undertaking upon the resources listed in c), including properties of historic value not listed on the National Register.

We appreciate this opportunity to look at this draft statement as an example of your agency's policy in this area. We hope that our comments will be useful as the Mint statement goes into final form and as other statements are drafted in the future.

Sincerely yours,



Robert R. Garvey, Jr.
Executive Secretary

cc:

Dr. S.K. Stevens, 20 Center Drive, Camp Hill, Pennsylvania 17011

OFFICE OF ECONOMIC
OPPORTUNITY

EXECUTIVE OFFICE OF THE PRESIDENT
Region VIII
Federal Bldg., 1961 Stout St.
Denver, Colorado 80202

August 8, 1972

IN REPLY REFER TO: 8/CR

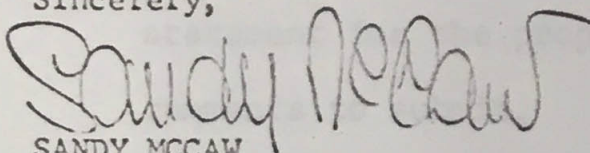
Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Your request for comments on the Draft Environmental Impact Statement for the proposed new Denver Mint, has been received by the Office of Economic Opportunity. This office has no comments to make regarding the project except to urge that the twenty families and several businesses who will be relocated in connection with the proposed project receive timely advice regarding the benefits for which they qualify under the uniform relocation act.

Thank you for providing us the opportunity to comment on your draft statement.

Sincerely,



SANDY MCCA W

Governmental Relations Specialist



State of Colorado

DIVISION of COMMERCE and DEVELOPMENT

DEPARTMENT OF LOCAL AFFAIRS

600 State Capitol Annex, Denver, Colorado 80203, Area Code 303, 222-9911

John A. Love
Governor

Dwight E. Neill
Director

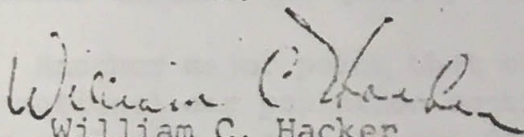
16 August 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft environmental impact statement for the proposed Denver Mint and have no comments to submit.

Sincerely,


William C. Hacker
Director
Community Development

WCH:nlhX



STATE OF COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. CLEERE, M.D., M.P.H., DIRECTOR

August 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We appreciate the opportunity to comment upon the Draft Environmental Impact Statement for the proposed new Denver Mint.

After careful study by the Air Pollution Control Division, we feel several major points should be considered. Initially, we are concerned about the proposed site of the new mint. The location is very poor from a meteorological point of view. Air pollutants accumulate along the Platte River valley, and tend to follow the river valley northward during nighttime and early-morning poor dispersion conditions. The Platte River valley, with adjoining highway system and local industry already is a major source of Denver air pollutants. Additional industries in this area must be designed for near zero air pollution emissions if we are ever to achieve national ambient air quality standards.

Another major point that should be considered is the current State and national air pollution control emission standards. Toward that end, I am enclosing a copy of the State rules and regulations. It should be pointed out that future emission regulations are now being prepared by both State and national agencies.

If the Colorado Air Pollution Control Division of the Department of Health may be of further service, please call upon us.

Cordially,

G. P. Wood, Ph.D., Director
Air Pollution Control Division
By:

Lindsay M. Tipton

Lindsay Tipton
Air Pollution Control Specialist
Planning Section
Air Pollution Control Division

LT:pc
Enclosure ...



COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. CLEERE, M.D., M.P.H., DIRECTOR

August 11, 1972

Mr. Frank W. Rhea
Bureau of the Mint
230 West Colfax Ave.
Denver, Colorado 80204

RE: DRAFT Environmental Impact Statement
New Denver Mint

Dear Mr. Rhea:

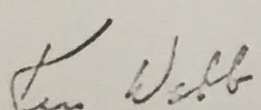
The impact statement referred to above has been reviewed by this Division.
Our comments are as follows:

- 1) Section 2.4 Item b, page 10. It is assumed from this statement there will be no effluents from this plant except as noted below.
- 2) Section 2.4 Item c, page 10. It is assumed from this statement that process cooling water will be recirculated for reuse and there will be no discharge of cooling water to the South Platte River. It is conceivable the South Platte adjacent to the proposed Mint site may be reclassified to warm water fishery in the future. We are therefore enclosing a copy of the Water Quality Standards for Colorado for your information. Your attention is called to item B 2.e page 5 in the event provisions are made to bypass the cooling towers for emergency or temporary use.
- 3) We request that adequate provisions be made to prevent an increase in turbidity of the S. Platte during the construction phase of the project.

We thank you for the opportunity to review this statement.

Very truly yours,

FOR DIRECTOR, WATER POLLUTION CONTROL DIVISION


Kenneth W. Webb, P.E.
Public Health Engineer

cc: Dr. Downs

enclosure: Water Quality Standards

STATE DEPARTMENT OF HIGHWAYS

CHAS. E. SHUMATE

EXECUTIVE DIRECTOR

DIVISION OF HIGHWAYS
LAURENCE C. BOWER
CHIEF ENGINEER

STATE OF COLORADO

COLORADO STATE PATROL
COL C WAYNE KEITH
CHIEF

4201 EAST ARKANSAS AVENUE • DENVER, COLORADO 80222 • (303) 757-9011

August 28, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax
Denver, Colorado 80204

Dear Mr. Rhea:

Reference is made to your letter dated August 4, 1972, transmitting a draft Environmental Impact Statement as required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

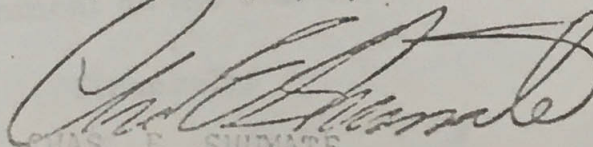
The Colorado Department of Highways appreciates the opportunity to review this Draft Environmental Impact Statement concerned with the construction of the new United States Mint in Denver, Colorado.

This Department has no objection to the construction of the new Mint at the proposed South Platte River location.

After an on-site examination of the proposed project by personnel from the Department's Environmental Section, the statement in its present form appears to be complete and satisfactory.

If the Colorado Department of Highways can be of further assistance to you please feel free to contact us at your convenience.

Very truly yours,


CHAS. E. SHUMATE
Executive Director

CES:as

cc: Bower - Haase- Zulian
R. E. Heathcote
Harvey Atchison

DIVISION OF WILDLIFE

Harry R. Woodward, Director

6060 Broadway

Denver, Colorado 80216 • 825-1192

75th Anniversary - 1897-1972

September 20, 1972



Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Division of Wildlife has reviewed the Draft Environmental Statement entitled "Construction of a New United States Mint - Denver, Colorado" and offers the following comments:

A sub-heading is needed to separate the Project Description from the description of the existing environment.

Game species in the area include muskrat, mink, song birds, waterfowl and other migratory birds. Populations are small. Fish species include channel catfish, a few trout and rough fish. The Division of Wildlife has been planting catfish in the South Platte River near the project area for several years.

We recommend that all facilities for treatment of chemical effluent and oils be located out of the flood plain to prevent contamination of the South Platte River through flooding or leakage.

This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area.

We appreciate the opportunity to comment on the statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harry R. Woodward".
Harry R. Woodward
Director

DS/cb

cc: T. W. Ten Eyck
E. P. Cook

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

January 16, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

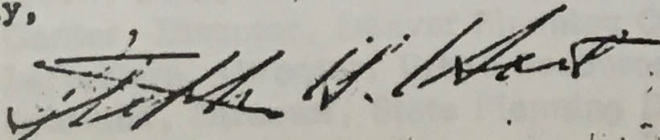
As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

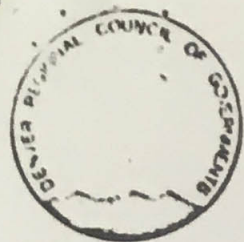
Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,



Stephen H. Hart
Colorado State Liaison Officer



DENVER REGIONAL COUNCIL OF GOVERNMENTS

1776 SOUTH JACKSON STREET • SUITE 200 • DENVER, COLORADO 80210 • 758-5166

September 20, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Subject: EI/008-72 Draft Environmental Impact Statement for
Construction of the New U. S. Mint in Denver, Colorado

Dear Mr. Rhea:

Reference is made to your letter and enclosure of August 4, 1972, concerning review of the draft Environmental Impact Statement for Construction of the New U. S. Mint in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (Public Law 01-100). In response to your communication, we have notified concerned and affected jurisdictions and agencies in the region and have made available to them copies of the draft Environmental Impact Statement. In addition, the Council has reviewed the Statement as it relates to the Council of Governments' concern with areawide planning and development.

Enclosed are the comments that were made on the draft Environmental Impact Statement.

The Council of Governments appreciates this opportunity to be of service to your agency.

Sincerely,

Robert D. Farley
Robert D. Farley
Executive Director

Enclosure

cc: Mayor W. McNichols, Jr., COG Representative, City & Co. of Denver
Councilman I. Hook, COG Representative, City & Co. of Denver
H. Cook, Director of Public Works, City & Co. of Denver
A. Canter, Director, Denver Planning Office
L. LaPerriere, Director, Urban Resources Development Agency
P. Schmuck, Director, State Planning Division

COUNCIL OFFICERS

EUGENE PORTIER Secretary/Treasurer

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GUY R. SANDERS Vice Chairman

ROBERT D. FARLEY Executive Director

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Jeff. Co. Comm.

*Chairman

**Vice Chairman

COMMENTS ON EI/008-72
U. S. Mint Draft Environmental Impact Statement

DRCOG Staff: The DRCOG staff in general finds that the draft statement addresses and answers all issues in accordance with the National Environmental Policy Act.

The following comments relate primarily to the statements on the impact of the relocation of the U. S. Mint facilities in terms of: (1) those households currently located on the proposed site which will be required to relocate elsewhere; and (2) the Mint's present employees, particularly those of low- and moderate-income, whose residence-employment transportation pattern will be altered by the facility move.

There are two Federal Register citations regarding the location and relocation of federal facilities: (1) "Consideration of Socioeconomic Impact when Selecting Locations for Federal Buildings" -- FR, Volume 36, No. 231, Wednesday, December 1, 1971; and (2) "Procedures for Assuring Availability of Housing on Nondiscriminatory Basis for Low- and Moderate-Income Employees" -- FR, Volume 36, No. 239, Saturday, December 11, 1971. The intent of the two citations is to outline federal agency policy regarding the location and relocation of federal facilities and both the impact of such activities on current and projected federal employees, as well as the opportunities provided in such moves in furtherance of national housing goals and objectives in expanding the supply of low- and moderate-income housing available to federal employees involved in facility locations and relocations. The two citations are explicit as to the federal agency responsibilities in seeing that this intent is both pursued and achieved.

In view of the above there is a need for explicit "plans" regarding:

- (1) The relocation of the 20 families involved on the proposed site; and
- (2) The provision of alternative housing to both present and potential low- and moderate-income Mint employees, due to the relocation of the facility.

September 13, 1972

The substance of both plans would be a clear demonstration of sufficient availability of low- and moderate-income housing for both employees and relocatees.

The area in question is shown on the adopted DRCOG Regional Development Plan as commercial and services.

The comments should not be construed as critical of the Environmental Impact Statement itself, but only to outline an area of concern that appears to need further consideration. (September 7, 1972)

Denver Planning Office: (See the attached letter, dated September 19, 1972)

September 20, 1972

cjm

Yours very truly,

David Corbett

Regional Transportation District

56 Steele Street
Denver, Colorado 80200
303/399-8140

September 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

In response to your request, our review of the Draft Environmental Impact Statement for the proposed new Denver Mint has produced the following comments:

1. The name used in the report in reference to the public transportation agency should be corrected in all instances to read the "Regional Transportation District."
2. Section 2.2, beginning on page 5, should include a stronger statement concerning required coordination between site planning for the new Mint and planning for public transportation in the immediate vicinity, as well as within the entire metropolitan region. Such coordination may have a significant impact on employee and visitor traffic at the site, and site access. RTD has several planning proposals which have a direct relationship to the proposed new Mint location. We would be glad to discuss our proposals with you to begin to develop the necessary coordination.
3. The fact that the Department of Highways is also preparing to investigate a location for a new highway facility, the Market/Blake Parkway, in the immediate area, points out the need for total coordination between all agencies involved to assure consistency in overall planning.
4. With respect to public transportation, we see no adverse environmental affects from the proposed relocation of the Mint. We do feel that the opportunity to work together can permit the development of an optimum transportation connection to the mutual benefit of the Mint, the public transportation system, and the entire Denver region.

Please feel free to contact me at any time you wish to discuss the situation.

Yours very truly,

Harry L. Parrish Jr.
Harry L. Parrish, Jr.
Executive Director

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NUMBER ONE

3100 EAST 60TH AVENUE • COMMERCE CITY, COLORADO 80022 • PHONE: 303-288-0613

WILLIAM E. KORSITZ, P. E.
MANAGER

FRED E. HENDRICKSON
HAROLD V. COOK
MARY B. O'DELL
WILLIAM E. KUHN

CHAIRMAN
CHAIRMAN PRO TEM
SECRETARY
TREASURER

August 10, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 W. Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft of the Environmental Impact Statement which you sent to us on August 4, 1972. As mentioned in the statement, the District is proposing to construct a sanitary interceptor sewer which will generally parallel the South Platte River on the west side. The design of this facility was in its final stages when information was received that the new mint may be located at the now proposed site. Design was, therefore, based on the location of existing roads and buildings.

Since this land is presently the property of the City and County of Denver, our contacts have been with the City Engineer. Plans for the sewer have been sent to him for review. Should a conflict exist between our present alignment and your plant facilities, we, along with our consulting engineer, would be happy to meet with you to discuss a possible modification.

Since our available tolerances on both grade and alignment are very close through this area, we would greatly appreciate the cooperation of your office and the City and County of Denver in working out a solution which

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NUMBER ONE

3100 EAST 60TH AVENUE • COMMERCE CITY, COLORADO 80022 • PHONE: 303-288-0613

WILLIAM E. KORSITZ, P. E.
MANAGER

FRED E. HENDRICKSON
HAROLD V. COOK
MARY B. O'DELL
WILLIAM E. KUHN

CHAIRMAN
CHAIRMAN PRO TEM
SECRETARY
TREASURER

August 10, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 W. Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft of the Environmental Impact Statement which you sent to us on August 4, 1972. As mentioned in the statement, the District is proposing to construct a sanitary interceptor sewer which will generally parallel the South Platte River on the west side. The design of this facility was in its final stages when information was received that the new mint may be located at the now proposed site. Design was, therefore, based on the location of existing roads and buildings.

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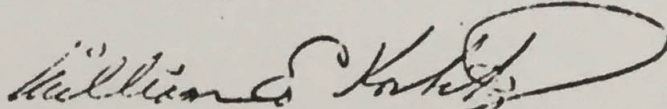
Mr. Frank W. Rhea

Page 2

August 10, 1972

will be to the benefit of all concerned. Our present plans call for this project to go under construction in early 1973; therefore, if any conflict exists, we would appreciate a response from you or the City in the near future.

Very truly yours,



William E. Korbitz, P.E.
Manager

WEK:ble

cc - Jack Keller
Fred Hendrickson
Jack Bruce



L. Scott Tucker, Executive Director

August 25, 1972

Executive Committee:

John J. Nicholl
Arapahoe County
Kenneth D. Mitchell
City of Brighton
James Van Buskirk
Boulder County
Irving S. Hook
City of Denver
Charles S. Robinson
Engineer

Members:

William H. McNichols
City of Denver
Ivanhoe Rosenberg
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James J. Richey
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Joe B. Lewis
Jefferson County
David Cran
Adams County
Richard McLean
City of Boulder
Paul C. Bock
City of Aurora
Arlen E. Patton
Engineer
David A. Curtis
Douglas County

TELEPHONE 534-0105 • 181 E. 56TH AVENUE • DENVER, COLORADO 80216

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This letter regards your request for comments you have regarding the environmental impact statement for the proposed new Denver Mint. The proposed mint is located in the South Platte flood plain of the South Platte. Planning is based on the closure of Chatfield as scheduled by the Corps in 1973 and flood proofing against the Standard Project flood. After Chatfield, the Intermediate Regional flood will be retained within the Platte channel and this aspect is covered in detail in the draft you provided.

One aspect that is not covered, however, is the drainage tributary to the site from the west. The site is located at the base of a drainage area of approximately 800 acres that is a tributary to the Platte. This area is highly developed and includes the Valley Highway. Site planning should recognize the tributary drainage. I point this out for your information and do not think it will provide any problems that can not be easily handled.

Sincerely,

L. Scott Tucker
L. Scott Tucker,
Executive Director



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

September 19, 1972

Mr. Robert Farley, Executive Director
Denver Regional Council of Governments
1776 South Jackson Street
Denver, Colorado 80210

ATTENTION: Duane Ebertowski

SUBJECT: Denver Planning Office review
of Draft Environmental Impact Statement
on new United States Mint

Dear Mr. Farley:

Thank you for the opportunity to review the Draft Environmental Impact Statement prepared by the Bureau of the Mint, Department of the Treasury related to the construction of the new United States Mint in the City and County of Denver. Our general reaction to the statement is that it satisfies the needs and addresses the issues that we understand are intended in the requirements for an Environmental Impact Statement. We are generally satisfied with the location of the Mint and the evaluation of the environmental issues involved, as described in this statement.

However, we would like to call to the attention of the drafter of this statement that there are a few corrections that we would like to see made, as follows:

1. On page 3, at the end of the fourth full paragraph, delete the words "combination residential and commercial building", and replace with the words "office building complex."
2. On page 4, first paragraph, second line "Denver Planning Commission's" should read "Denver Planning Office's". On the 4th line, insert "and" between "east" and "a Platte River Park" and insert a period after the phrase "(presently railroad yards)" and delete the remainder of that sentence.
3. On page 4, in the last paragraph, change "Denver Planning Commission" to "Denver Planning Office".
4. On page 6, in the first full paragraph, change "Denver Planning Commission" to "Denver Planning Office". Also, on page 6, under item c., change "The location of the proposed Market Street throughway" to "The location of the proposed Market-Blake Parkway" and under item d., change

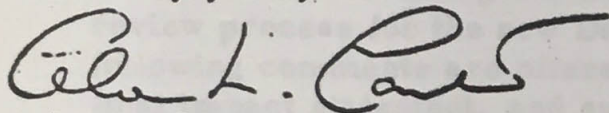
Mr. Robert Farley
September 19, 1972
Page 2

"The location of the proposed mass transit "People Mover" connecting downtown" to "The location of the proposed personalized rapid transit (PRT) "People Mover" connecting downtown" and in the same sentence, change the "Bears Stadium" to the "Mile High Stadium".

5. On page 6, delete item e. entirely and change item f. to a new item e.
6. On page 14, under item b. change the "Denver Planning Commission" to the "Denver Planning Office.

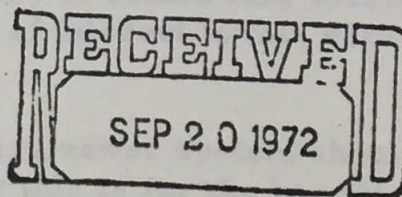
Again, thank you for the opportunity to review this Draft Environmental Impact Statement. We would be anxious to receive a copy of the final statement when it is prepared.

Sincerely yours,



Alan L. Canter
Director of Planning

ALC/AGA/jp



D. R. C. O. G.

JAMES L. OGILVIE
Secretary-Manager



Board of Water Commissioners

144 West Colfax Avenue Denver, Colorado 80202 Phone 222-5511

COMMISSIONERS

ANDREW HORAN, JR., President WILLIAM O. TEMPLE, 1st Vice-President
JOHN A. YHELENICK A. ASBORNO CHARLES F. BRANNAN

August 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
U.S. Department of the Treasury
Bureau of the Mint, Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for including the Water Department in your information and review process for the new Denver Mint. As per your request, the following comments are offered in connection with development of your final impact statement, and subsequently in the development of your new Denver Mint.

First, I would like to address the problems of water facilities and supply. It may be in the best interest of the Mint and the Water Department if you would contact the Department's Marketing Section at the earliest possible date. Mr. P. K. Bryant of that section will be able to provide you information on policy and procedures for relocating and/or extending water mains, arranging for taps from mains, and the potential water supply available (such as rates of flow and pressures). Your plans and scheduling may be affected by construction of a water supply.

Secondly, I will send you, under separate cover, a copy of our 1971 Water Quality Report. I'm sure it will be of use to your process design consultants. I will appreciate the opportunity of reviewing the plans and specifications for the water pollution control system.

Third, the estimated quantity of water necessary for both industrial and domestic use, the quality and quantity of return flow directly to Platte River and periods of discharge are of interest to this department's successive use program.

Finally, any discharge to the sanitary sewer system should be qualitatively summarized. The basic reason for this is for the benefit of Metropolitan Sewage District No. 1, who has to treat the sewage, and for the Water

JOHN A. YHELENICK

A. ASBORNO

CHARLES F. BRANNAN

Mr. Frank Rhea
August 18, 1972
Page 2

Department, who, in the near future, will develop a portion of this effluent as successive use water. We would also appreciate being informed of any additional parameters that may be placed upon our project by your proposed development, through changes in water quality.

I am sure that the new Mint would esthetically add to the area and wish you success in implementation of the project.

Sincerely,

J. L. Ogilvie

J. L. Ogilvie
Manager

JLO/ee

THORNE
ECOLOGICAL
INSTITUTE

1405 Broadway

XXXXXXXXXXXXXXXXXXXXX

BOULDER, COLORADO 80302 (303) 443-4444 7321

August 30, 1972

Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Sir:

We have reviewed the draft environmental impact statement relating to the construction of the new U. S. Mint in Denver. We have kept our comments brief but I think they will suffice to show the area of interest:

1. The proposed location will increase air pollution from vehicles -- tourists as well as mint works -- in an area that already naturally serves as a settling basin for smog.
2. Is there an absolute guarantee that air pollution from smelting, metal work, et al will be eliminated by the devices proposed to be used? Have these devices been thoroughly tested under similar situations? It is our understanding that there are still technical problems to be solved.
3. It is possible that sewage waste contamination might occur to the South Platte River at a time of flooding through "back flushing" because the proposed new Mint building will be located on a flood plain and at or near the possible flood level at times.
4. We might suggest an operational stipulation to include continuous monitoring of all effluents to the South Platte River be conducted to assure no escape of heavy metals, trace elements, and acids to the river as the result of metal operations, handling, cleaning, washing down, etc.

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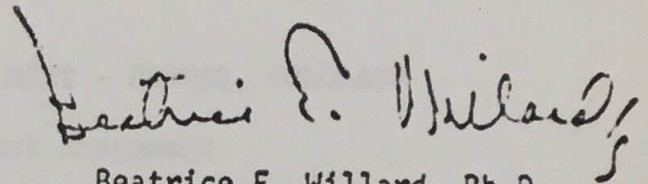
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MRS. ELIZABETH C. TITUS
DR. GEORGE TREICHEL

Thank you very much for the opportunity to review this impact statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Beatrice E. Willard". The signature is fluid and cursive, with a large initial "B" and a stylized "W".

Beatrice E. Willard, Ph.D.
President

DEW:sjs

CONSTRUCTION OF NEW UNITED STATES MINT - DENVER, COLORADO

Final Environmental Impact Statement

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

February 2, 1973

Prepared for

U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220

NEW UNITED STATES MINT
DENVER, COLORADO

() Draft

(X) Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.

1. Name of Action: (X) Administrative () Legislative

2. Description of Action: Construction of a combination of high-bay one story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction will consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space will be about 700,000 square feet. Proposed location is in Denver along the South Platte River from about Eighteenth Avenue to Speer Boulevard. The proposed action would assure the required production of high quality coins for the United States.

3. Environmental Impacts

a. Favorable Environmental Impacts: The proposed facility should have a favorable effect on the aesthetics of the site and provide appropriate land use of the proposed site.

b. Adverse Environmental Impacts: Adverse environmental impacts of the project are (1) the increase in automotive traffic in the site vicinity resulting from the operation of the new facility, (2) the requirement to relocate four commercial enterprises and about twenty families, and (3) the various normal short-term impacts during the construction period. In addition, the proposed site is in a flood plain, which would have serious implications if the Chatfield Dam, upstream of the site on the South Platte River, were not completed as scheduled. Potential flooding will require special attention in the detailed design of the facility.

4. Alternatives: Alternatives considered include:

a. Continuation of the operation of the present Denver Mint without constructing a new facility.

b. Construction of a new mint at some other location.

5. Written comments on the Draft Statement for this proposed project have been received from the following agencies:

Environmental Protection Agency
Department of Agriculture
Soil Conservation Service
Forest Service
Department of Commerce
Department of Defense, Army Corps of Engineers

5. Written comments received from the following agencies (Cont'd.):

Department of Housing and Urban Development
Department of the Interior
 Missouri Basin Region
 Bureau of Mines
 Geological Survey
Department of Transportation, Federal Highway Administration
Advisory Council on Historic Preservation
Office of Economic Opportunity
State of Colorado Division of Commerce and Development
State of Colorado Department of Health
State of Colorado Department of Highways
State of Colorado Division of Wildlife
State Historical Society of Colorado
Denver Regional Council of Governments (Regional Clearing House)
Regional Transportation District
Metropolitan Denver Sewage Disposal District Number One
Urban Drainage and Flood Control District
City and County of Denver
Board of Water Commissioners, City and County of Denver
Thorne Ecological Institute

6. Dates on which statements made available to Council on Environmental Quality and the public:

Draft Statement - August 9, 1972
Final Statement - February 2, 1973

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Appendix A - Map of Site Area

Appendix B - Aerial Photograph of Site Area

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ENVIRONMENTAL IMPACT STATEMENT
NEW DENVER MINT
DENVER, COLORADO

1. Description of the Proposed Action

1.1 Project Description

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be twelve billion coins per year. Production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 7.7 billion coins per year by 1980. The present Denver Mint has a capacity of 4.0 billion coins per year. Building space and outside areas in the present United States Mint institutions are saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

The proposed new mint will have the mission of producing domestic coins ranging in denomination from 1¢ to 1\$, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint will perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

(a) Basic Functions

Melting and casting of various metals and metal alloys, ingot hot rolling, scarfing, strip intermediate rolling, strip finish rolling, strip slitting, blanking, blank annealing and cleaning, up-setting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(b) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins, and supplies) and warehousing.

(c) Administrative Support Functions

Mint Staff (Superintendent and Deputy Superintendent,

Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety, and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment in December 1977. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1979.

The new mint is being planned for year 1980 production capacity of 7.7 billion domestic coins per year and 35 million proof coins and medals per year, on the basis of operating the facility two shifts per day, five days per week, 240 days per year, except that the melting and casting of metal and metal alloys is planned for three shifts per day. The new mint will be designed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years.

Detailed design of the facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (a) A site consisting of a minimum of 25 acres.
- (b) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which will provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, to be in harmony with and to enhance the area where it is located, and in appreciation of the important tourist aspects of the facility.

The proposed site for the new mint is in Denver, along the west bank of the South Platte River between the South Platte and the Valley Highway (I-25), and extending from about Eighteenth Avenue to Speer Boulevard. (See attached map, Appendix A, and attached aerial photograph, Appendix B).

Authority for a mint at Denver is contained in 31 U. S. Code 261, which reads as follows:

"The different mints and assay offices shall be --

"First. The mint of the United States at Philadelphia.

"Second. The mint of the United States at Denver.

"Third. The United States assay office at New York.

"Fourth. The United States assay office at San Francisco."

1.2 The Existing Environmental Setting of the Proposed Site

The proposed site consists of about 30 acres bordered by the official Platte River alignment on the east and Highway I-25 (Valley Highway) on the west. The northern section is laid out in streets and blocks along Water Street. This is a small portion of very old Denver which is occupied presently by four partial blocks of housing in relatively poor condition and four structures that have been renovated to house businesses. The southern section was originally used as a railroad marshaling yard. The City of Denver is using this southern 14 acres for road equipment and voting machine storage.

A rail spur runs along the bank of the river for the entire length of the property. This spur serves customers, both north and south of the site. This more or less permanent trackage tends to make the land industrial rather than residential. This existing rail spur is advantageous, as regards the proposed mint, as it is desirable to have rail access to the mint for delivery and shipment of large quantities of metal, coin blanks and scrap.

Access to the site is available from the Valley Highway at the south at about Nineteenth Avenue and in the center at Twenty-third Avenue onto Water Street, which passes through the northern section and continues on north. There is access from the Speer-Valley Highway at the north end by going south on Water Street. The Valley Highway may be crossed from the west by an underpass at Seventeenth Avenue, a bridge over the Valley Highway at Twenty-third Avenue, and at Speer-Valley interchange.

There is no appreciable landscaping in the area. The Valley Highway right of way has been recently landscaped, but the trees are still small. There are several old trees scattered about the northern portion of the area. There are some vacant lots and open fields in the area, and existing lawns are maintained at minimum levels.

To the north of the proposed site, beyond the Speer Boulevard viaduct, is the Forney Museum, housed in a former gas generation plant. This is of historic significance and will probably be permanent. There are industrial plants to the south, isolated from the proposed area by the Valley Highway. Immediately to the west and across the Valley Highway is the Denver Mile High Stadium. North of the stadium is a new high-rise Holiday Inn. North of this in the vicinity of the Speer-Valley interchange is a new, large multistoried office building complex.

The area across the river and east of the site is a rail yard. This very unsightly area is proposed as a park by the City of Denver in their South Platte Development Project. *

* This document may be obtained from the City and County of Denver Planning Office, 1445 Cleveland Place, Denver, Colorado 80204. It, and other reports, letters, etc. referred to in this Environmental Statement, are available for inspection in the office of the Facilities Project Manager, Bureau of the Mint, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

Power, gas, water, and drainage lines cross the site feeding other areas. These facilities are discussed in detail in paragraph 2.5, Relocations of Utilities.

The primary changes envisioned in the immediate vicinity of the site are contained in the Denver Planning Office's proposed South Platte Development Project. This project includes an extension of the Auraria Educational Complex to the east and a Platte River Park between Auraria and the river (presently rail yards). West of the site, across the Valley Highway, the project includes plans for completion of a sports complex, including enlargement of the present stadium and construction of a large indoor arena. Thus, the proposed mint site is in the center of a large area which is in the process of being upgraded.

The climatic environment of the proposed site is generally the same as the City of Denver (Platte River - Cherry Creek Basin), which is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent. The proposed site is relatively low, as it is immediately adjacent to the Platte River. This low level provides some protection from winds; however, whatever smog collects in Denver tends to settle along the river.

The soil conditions at the surface of the projected site are variable. Bed rock (Upper Dawson Formation) exists at the river bottom level, some 10 to 25 feet deep. The natural material covering the bed rock consists of combined gravel and clay-like material washed down to the stream plain from the higher ground to the west. Some of the area has been filled; some of it was dump area. The whole site slopes to the east and drains into the river. There are no swamps or marshlands.

Wildlife species in the area include muskrats, mink, skunks, raccoons, mice, feral house cats, song birds, doves, waterfowl and other migratory birds. Fish species include channel catfish and some other varieties.

2. Probable Environmental Impact of the Proposed Action

It has been concluded that construction of a new mint on the proposed South Platte River site would have some significant effects on the environment - both beneficial and adverse. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the construction period. A discussion of the probable effects follows.

2.1 Physical relationships to the immediate area and to the City and County of Denver

The location is in harmony with the South Platte Development Project, as proposed by the Denver Planning Office. The mint buildings proposed for the project would replace the city voting machine and road construction equipment storage facilities on the southern portion of the site, and the approximately thirty residences (some of which are presently vacant) and four businesses on the

northern portion of the site. The new structures would incorporate all of the functions of the present Denver Mint, so that this existing substantial and beautiful building would be available for other public use, probably by the City and County of Denver. The new mint, while not planned as a monumental structure, will be tasteful and imposing, and the buildings and landscaped areas should complement the proposed Platte River Park and the Auraria complex to the east, the stadium-arena, motel and other commercial developments on the higher ground to the west, and the industrial developments along the north-south axis of the Platte River.

The site is presently zoned "BA-2, Motels" (southern portion) and "I-1, Medium Industrial" (northern portion) under the zoning plan of the City and County of Denver. From an environmental standpoint, the suitability of the site for residential purposes is considered to be poor, primarily because of the heavy automobile traffic in the vicinity, particularly on the Valley Highway. This heavy traffic also has a degrading affect with respect to use of the area as a park. The more protected area of about the same size, directly east of the site and across the Platte River, has been designated as a public park in the Denver Planning Office Program.

The proposed location of the new mint is in the approximate center of the Metropolitan Denver area and also is in relatively close proximity to existing and planned low and moderate income housing in Denver. The proposed site is a short distance from the present Denver Mint on West Colfax Avenue, and relocation to this site would have little effect on the housing situation for present and potential mint employees.

Use of the South Platte site would require considerable demolition of existing structures and the relocation of approximately twenty families and four commercial enterprises to other areas. The City and County of Denver plans to acquire the private property in the area for later transfer to the Federal Government, along with the real estate already owned by the city. In acquiring the property and assembling of the site to be conveyed to the United States, the City and County of Denver would be required to undertake the obligations imposed by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) with regard to providing fair and reasonable relocation payments and assistance to eligible displaced persons. Specific plans for those families displaced by the project would be developed at a later date by the City and County of Denver working in conjunction with the Department of Housing and Urban Development and the Denver Urban Renewal Authority.

Even though the displaced parties are provided assistance and compensated financially, the relocations would cause considerable inconvenience and disruptions of the activities and interests of the people involved.

The proposed project would have little impact on historic

resources. The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property on, or in the vicinity of, the proposed site for the new mint is affected by the project. After review of the Draft Environmental Impact Statement for this project, the State Historical Society of Colorado provided the following comments:

"Dear Mr. Rhea:

As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,"

/s/ Stephen H. Hart
Stephen H. Hart
Colorado State Liaison Officer

The present Denver Mint, as Mr. Hart states in his letter, is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time, but it is visualized that it would continue in public use, either for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

It is believed on balancing the factors discussed above that locating the new Denver Mint at the proposed site would be a beneficial land use.

2.2 Transportation of materials, employees, and visitors into and out of the project

While overall access to the site is excellent, there would be problems involved in adding to the traffic load on the Valley Highway (I-25) and the other access roads in the vicinity. The additional traffic load would consist of three distinct elements as follows: private automobiles of mint employees; commercial vehicles handling shipments into and out of the facility; and tourists' private automobiles and busses. Traffic loads for mint employees' private automobiles would be approximately 175 cars inbound for the start of the morning shift (presently at 7:00 A.M.), 100 cars inbound at about 8:00 A.M., 175 cars in and 175 cars out during the mid-afternoon shift change (presently at 3:00 P.M.), 100 cars out at about 4:30 P.M., and 175 cars outbound at the end of the second shift (11:00 P.M.). The shift changes would be adjusted to avoid peak traffic periods in the site vicinity. The 15 daily average commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush hour traffic. Tourist traffic averaging 300 cars and 5 busses daily would naturally occur during nonpeak traffic periods, as visitor hours would be from 9:00 A.M. to 3:00 P.M. daily. All of this additional traffic would not use the Valley Highway, but there would be an increase in traffic on this heavily used corridor (105,800 vehicles in the site vicinity on an average weekday in 1971). The mint traffic would terminate in its own parking areas on site and thus would not add to parking congestion in the vicinity.

Several transportation proposals in the proposed site area are under planning development at this time by the Regional Transportation District, the Colorado Department of Highways and the Federal Highway Administration. These proposals and plans, and the planning for the new mint, will require that joint planning and thorough coordination among the agencies involved would have to be accomplished so as to assure consistency in planning and the least environmental impact. These are matters of detail which can be resolved by the agencies involved during the specific design of the new transit facilities and the detailed design of the new mint. Transportation matters which would require detailed coordination in the design phase are:

- a. The rerouting of Water Street around the western border of the site.
- b. The reconstruction of the interchange at the eastern end of the Twenty-third Avenue bridge to accommodate the exit and entrance ramps to Valley Highway, Water Street, and an entrance to the proposed mint site.
- c. The location of the proposed Market-Blake Parkway and its interchange with the Valley Highway at the south end of the projected mint site.
- d. The location of the proposed personalized rapid transit

(PRT) "People Mover", connecting downtown Denver and the Mile High Stadium - new arena complex, including the construction of a station in the vicinity of the new mint.

e. The location of a frontage road parallel to the Valley Highway from Colfax Avenue to the west Thirty-eighth Avenue interchange.

2.3 Flood plain aspects of the proposed site

A detailed review of the flood plain implications of the proposed South Platte River site for the new mint has been completed by the Treasury Department. The following are the actions taken in this review and the conclusions resulting therefrom:

a. Letters from the Omaha District Corps of Engineers to Mr. Gregory Cavanagh, Regional Director, Public Building Services, Region 8, General Services Administration, dated 16 July 1971 and 23 July 1971, were analyzed in detail. These letters, and particularly the 23 July 1971 letter, confirmed that the 1965 flood approximated a 100-year flood and that during this flood the water reached elevation 5,190 adjacent to the center of the proposed site. (The ground adjacent to the river at the center of the site is at approximate elevation 5,188. The topography of the site varies, of course, with elevations increasing in the upstream direction and away from the river. Thus, during the 1965 flood, before the start of construction of the Chatfield Dam, approximately 30 percent of the site was flooded, with water depths varying from 0 to 36 inches.) These letters also state that, with the Chatfield Dam in operation, a 100-year flood would be confined within the river's banks and would reach elevation 5,182, and a "standard project flood", as defined by the Corps of Engineers, would reach elevation 5,189, both elevations at the approximate center of the proposed site. (With the Chatfield Dam in operation, the 100-year flood would not inundate any portion of the proposed site. The standard project flood would inundate approximately 25 percent of the site, without any corrective measures. See paragraph 2.3e(2) below for a discussion of planned protective measures).

b. A call was made to Mr. R. G. Burnett, Chief, Engineering Division, Omaha District, Corps of Engineers, on 11 April 1972. Mr. Burnett confirmed that the Chatfield Dam, now under construction, is scheduled for closure in late summer 1973, and that Mt. Carbon Dam on Bear Creek is now under design, with funds available for acquisition of land required for this project. Mr. Burnett said he would have his flood plain official, Mr. Gau, review the specifics of this particular site.

In response to a specific question, Mr. Burnett provided the following Corps of Engineers' definition of a standard project flood:

"The standard project flood is representative of the critical concentration of runoff from the most severe combination of precipitation and snow melt, if pertinent, that is reasonably characteristic of the drainage basin involved."

Mr. Burnett stated further that the Corps does not associate a specific frequency with a standard project flood, but that such a flood is representative of the largest flood reasonably expected to occur and would be exceeded only on rare occasions. (Thus, the expected frequency of occurrence is much less than once in a hundred years. A standard project flood is more in the order of a 250-500 year flood).

c. On 12 April, Mr. Gau, Chief of Flood Plain Management, Omaha District, Corps of Engineers, provided further information relative to the proposed site. Mr. Gau made reference specifically to a document entitled, "Flood Plain Information Study, South Platte River Basin, Colorado, Denver Metropolitan Region, Updated August 1968", that the Corps of Engineers had done on the South Platte River and stated that a copy of this study was available in the office of the Colorado Water Conservation Board in Denver. Mr. Gau also stated that this flood plain study provided the current information with respect to the proposed Denver Mint site. He reiterated the information provided the previous day by Mr. Burnett and added that the Mt. Carbon Dam effect on reduction of flood water elevations at the proposed site would be on the order of one foot. Mr. Gau stated that the Chatfield Dam is the prime contributor to flood reductions in this particular reach of the South Platte and thus any uncertainties with respect to completion of Mt. Carbon Dam are not material.

d. The Corps of Engineers' flood plain study referred to above was reviewed in the offices of the Colorado Water Conservation Board. The study contains a general statement that it reflects reduced discharges resulting from the operation of the Chatfield and Mt. Carbon Dams. The study also has the following notes on the cover page:

(1) The 1965 flood has been included in the updated hydrologic analysis and has increased the basic discharges for a given flood frequency.

(2) An intermediate regional flood is a flood having a one percent probability, or an average frequency of once in 100 years.

The following surface water elevations were extracted from the graphs and maps included in the subject Flood Plain Study:

	<u>Elevations</u>	
	<u>Standard Project Flood</u>	<u>Intermediate Regional Flood</u>
Drop Structure (vicinity of upstream end of proposed site)	5,193	5,187
7th Street bridge (near site center)	5,189.5	5,182
Speer Blvd. (downstream end of site)	5,185	5,178

e. Further analysis of this matter revealed the following:

(1) The 100-year flood, with the Chatfield Dam in operation, would be confined within the banks of the South Platte River at the site. In effect, this situation means that the site with existing elevations has a very high flood damage protection factor.

(2) Also, with the Chatfield Dam in operation, during a standard project flood there would be flooding of a small portion of the site as it exists, immediately adjacent to the river. Because of the configuration of the site and the large size of the buildings, the proposed mint structures would be located on the higher elevations away from the river. In accomplishing site grading, select fill material would be placed to produce finish elevations under the structures at least three feet above the predicted water elevations of a standard project flood. Further, it is planned to design and construct the new mint so that the lower portions of all structures up to three feet above ground elevations are floodproofed. These measures, in combination with the effect of the Chatfield Dam, would provide protection such that the possibility of flood damage is extremely remote.

(3) The proposed site would be used essentially as it exists with respect to the flow of the South Platte River, except for the fill planned for placement as discussed in paragraph (2) above. There would be no construction of buildings or other structures which would change the hydraulic capacities of the channel of the South Platte, either during flood periods or normal runoff. The fill which would be required for the proposed construction would reduce flood volume storage by approximately 40,000 cubic yards, an insignificant amount considering the total volume of a South Platte flood.

f. With respect to subsurface water at the site, no unusual problems are anticipated. The ground water table varies proportionately with the water level in the nearby South Platte River. However, all planning to date is based on slab-on-grade construction with the only foreseen requirement for basement or trench areas those necessary to provide space for sanitary sewers and for piping and drains to recirculate process liquids. These basement areas will require special protection from seasonally high water table conditions by proper treatment of basement walls and by installation of sump pumps.

g. In summary, the conclusion is that the new Denver Mint can be constructed on the South Platte River site with an extremely low flood risk factor and with reasonable costs incident to constructing in a potential flood plain.

2.4 Potential pollution - air, water, solid wastes, noise and visual

Due to the nature of the industrial operations planned to be performed in the new mint, there are potential pollution problems associated with the construction and operation of the facility. All of these potential problems will be analyzed in great detail during the

design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring advanced state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint be designed and constructed to comply with the letter and spirit of all local, state and federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint will be equipped with the most modern and efficient pollution measurement and prevention systems and equipment available, so that the plant will serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will perform to comply with the standards for air and water quality, in accordance with the provisions of Executive Order 11507, dated February 4, 1970.

Following is a listing of these potential problems and a discussion of planned systems and procedures for eliminating and reducing the potential pollution:

a. The new mint will generate some fumes from its metal melting and casting operations. If steam cannot be purchased from the existing Zuni Plant of the Public Service Company of Colorado, fumes would be generated by the mint heating plant.

Comment: All air extruded from the plant will be cleaned by electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, state and national standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards.

b. Chemical effluent will be produced from the assay laboratory, the blank cleaning operations and from the heating plant. Oil will be collected from the ingot rolling mill, from the strip mills, and from the blanking and coining presses.

Comment: All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. The treatment facility involved, plus sanitary sewage systems in the new mint, will be protected to preclude the possibility of contamination of the South Platte River through leakage or flooding. Discharges from the mint, if any, into either sanitary sewers or the South Platte River will comply with the Water Quality Standards of the Colorado Department of Health. Any discharges into the South Platte River will be monitored continuously.

c. There is a theoretical potential for thermal water pollution because of the requirements for cooling water for the melting and rolling operations.

Comment: Process cooling water will be recirculated within the plant in closed systems. This water will be processed through cooling towers and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of the cooling towers to avoid fog-producing conditions.

d. There will be solid wastes generated from numerous sources within the operations, with also the necessity during the construction period to remove (1) materials from demolished existing structures, (2) trees and other plant growth, and (3) perhaps some unsuitable materials.

Comment: Solid wastes will be processed within the plant, with major quantities of scrap metals being reused. Some solid wastes will be disposed of as salvage and the remainder will be packaged in suitable containers and removed to the city dump. Control of potential pollution during the construction operations will be accomplished by inclusion of an Environmental Section in the construction contract specifications requiring the contractor to comply with local, state and federal regulations pertaining to disposal of solid wastes, erosion and dust control, and noise control. Particular attention will be applied to surface drainage control during the construction phase to prevent erosion and to prevent any increase in turbidity in the South Platte River.

e. There will be some noise and visual pollution, particularly during the construction phase, with a potential for noise and visual pollution after project completion, if adequate precautions are not adopted.

Comment: Noise from operation of construction equipment and pile driving is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic on the Valley Highway. Operational noise and visual pollution potential at the new mint will be eliminated by designing buildings with internal and external noise level controls, and by construction of sufficient enclosed storage facilities so that metal and other supplies will not be stored in outside open areas, as in the case at the present Denver Mint. This would have the effect of removing a relatively minor noise and visual pollution source from the downtown Denver area.

f. There will be some air pollution in the site vicinity due to the increased automotive traffic previously discussed. This additional traffic is primarily a transfer of traffic, and its resultant effects, from the area of the present Denver Mint, a more downtown and congested location.

Comment: Elimination of the air pollution caused by the added

automotive traffic is dependent upon improvements and expansions in mass transit systems in the Denver area, and technical improvements to reduce or eliminate polluting emissions from automotive vehicles.

2.5 Relocations of utilities

Electric power, gas, water, sanitary sewer and storm drainage lines cross the site, feeding or servicing other areas. These facilities are planned for utilization in providing utilities services to the new mint. These lines, a 115 KV power line, a 12-inch water line, a 16-inch gas line, a sanitary sewer and four storm sewers, will require relocation. A proposed new 72-inch sanitary sewer being designed by Denver Metropolitan Sanitary District Number One will have to be located through the site in such manner as to avoid mutual interference of the sewer and mint functions. Rerouting of the 115 KV power line and placing it underground will improve the aesthetics of the area. The other relocations will not change the environment. They will have to be accomplished without interrupting service. Runoff from the site, and from the approximately 800 acre tributary drainage basin to the west of the site, will be drained by swales, culverts and storm drains to discharge into the South Platte River. All improved areas of the completed facility will be landscaped with trees, shrubbery and ground cover to provide acceptable control of erosion and silting.

2.6 Interaction between man and wildlife

As noted in the last paragraph of Section 1.2 of this environmental impact statement, there are small populations of several species of fish and wildlife in the proposed project area. Some of these species are desirable and beneficial, particularly the catfish in the South Platte River. Some species are not desirable and may, in some instances, be harmful to man and to other species. The Department of the Interior, in commenting on the Draft Environmental Impact Statement for this proposed project, noted that, at times, some of the species are found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. Department of the Interior comments also stated that the new mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change and concluded that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area. The Colorado Division of Wildlife, after review of the proposed project, commented that, "This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area."

3. Probable Adverse Environmental Effects Which Cannot be Avoided Should the Project be Implemented

Adverse and unavoidable environmental impacts of the proposed project are (1) the increase in automotive traffic which its operations will bring to the area, (2) the relocation of people and commercial enterprises,

and (3) the various normal short-term impacts of the construction period and its traffic additions.

The increase in automotive traffic in the site area will be caused by the passenger car traffic of the 850 personnel who will work at the facility, by the daily average of 15 trucks making deliveries and pickups, and by busses and private cars bringing tourists to the mint. The automotive traffic will cause some additional air and noise pollution and traffic congestion, particularly on U. S. Interstate Highway I-25. The major portion of the added passenger traffic will be during nonpeak traffic periods, as the work shifts and tourist visitation periods at the mint will be regulated to avoid these traffic peaks. Also, truck traffic to and from the site will be controlled to minimize peak traffic period additions. The additions of automotive traffic in the area of the new mint will be counterbalanced by the elimination of about 50 percent of the same volume of automotive traffic in the area of the present Denver Mint at 320 West Colfax Avenue, a more downtown Denver location.

It will be necessary to relocate four commercial enterprises and approximately twenty families from the area. This relocation is unavoidable. The persons and businesses involved will be compensated fairly and justly in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646 (84 Stat. 1894 42 U.S.C. 4601).

The major environmental impacts of the construction period will be felt in noise, dust, and in an increase in traffic volume. The construction contract specifications for the project will include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

4. Alternatives to the Proposed Action

These alternatives may be considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

Regarding the location for the proposed project, detailed studies by the Treasury Department of various locations in the United States have resulted in the conclusion that Denver is the optimum location for the new mint for the following reasons:

a. Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other major coin production facility, the Philadelphia Mint.

b. Denver is an excellent transportation center, with good trucking facilities available for shipping coins to the West Coast, as well as the Mid-West and points East as required. Transportation rates to Eastern points are favorable, as many trucks delivering to the Denver area return East empty.

c. The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

d. Electricity, gas and water are available at favorable rates.

e. The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a different city would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

The specific location for the new mint in Denver has been the subject of much investigation and review by the General Services Administration and the Treasury Department. A complicating factor in this process is the size of the area (25 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the site located on the west bank of the South Platte River between the Valley Highway (I-25) and the river, and extending from Eighteenth Avenue to the Speer Boulevard interchange, has been selected tentatively for the following reasons:

a. The site is adequate from an industrial engineering standpoint (area, dimensions, foundation conditions, availability of utilities, etc.) for the proposed new mint.

b. The mint at this location would be in harmony with the South Platte Development Project as proposed by the Denver Planning Office. The construction would complement the activities being undertaken through Urban Renewal in the Auraria and Skyline projects.

c. The site has considerable aesthetic potential to provide a distinctive, dignified setting for the mint.

d. The central location is generally favorable regarding availability of low and medium-cost housing and accessibility by employees using public transportation. (The latter should improve with time).

e. The relatively downtown Denver location is advantageous for attracting tourists, an important consideration for the Bureau of the Mint and for the City of Denver.

Other locations in the Denver area were considered and have been eliminated from consideration at this time because of undesirable factors in comparison to the tentatively selected South Platte River site. The sites considered and the prime reasons for elimination are:

a. (1) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

(2) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites are for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the Twenty-third Avenue South Platte site.

b. University Boulevard at Valley Highway (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been made available by the City.

c. Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the Gates Rubber Company, currently using the area, is expanding its operation and is not interested in selling the property.

d. York Street between Fortieth Avenue and Forty-third Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate aesthetic environment for the mint.

e. Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

f. Park Hill Golf Course.

The Park Hill site has much to recommend it, but it is not particularly suitable for the new mint because of its setting near a residential area. The additional traffic and industrial operations

would degrade the area. Preserving this site as open space is desirable.

g. Nome Street between Thirty-seventh Avenue and Fortieth Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

h. Sites outside the City of Denver.

These were considered, particularly locations at Rocky Mountain Arsenal and the Denver Federal Center, but they were eliminated because they would not have the advantage of assisting in the Urban Redevelopment of Denver.

5. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enforcement of Long-Term Productivity.

Cumulative and long-term effects of the proposed project might be assessed in terms of land use at the site and coining operations for the people of the United States. As stated earlier, the long-term suitability of the site for uses other than industrial operations is poor. The highways and roads on three sides produce a traffic and noise environment that is not compatible with residential or park-type uses.

A new mint on the site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean, mechanized facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the area should occur, assuming existing controls for preservation of the environment during construction are exercised. Generally, the proposed facility should result in an enhancement of the area in conformance with adjacent developments and planned land uses.

6. Any Irreversible and Irretrievable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented.

The proposed project is compatible with other developments in the vicinity. The land area is already zoned in part for motels and in part for medium industrial activities. The change to larger buildings on the site will result in more open space, and landscaping proposed will significantly increase the amount of green space. No historical or archaeological sites will be destroyed, nor will there be unalterable disruptions to the environment.

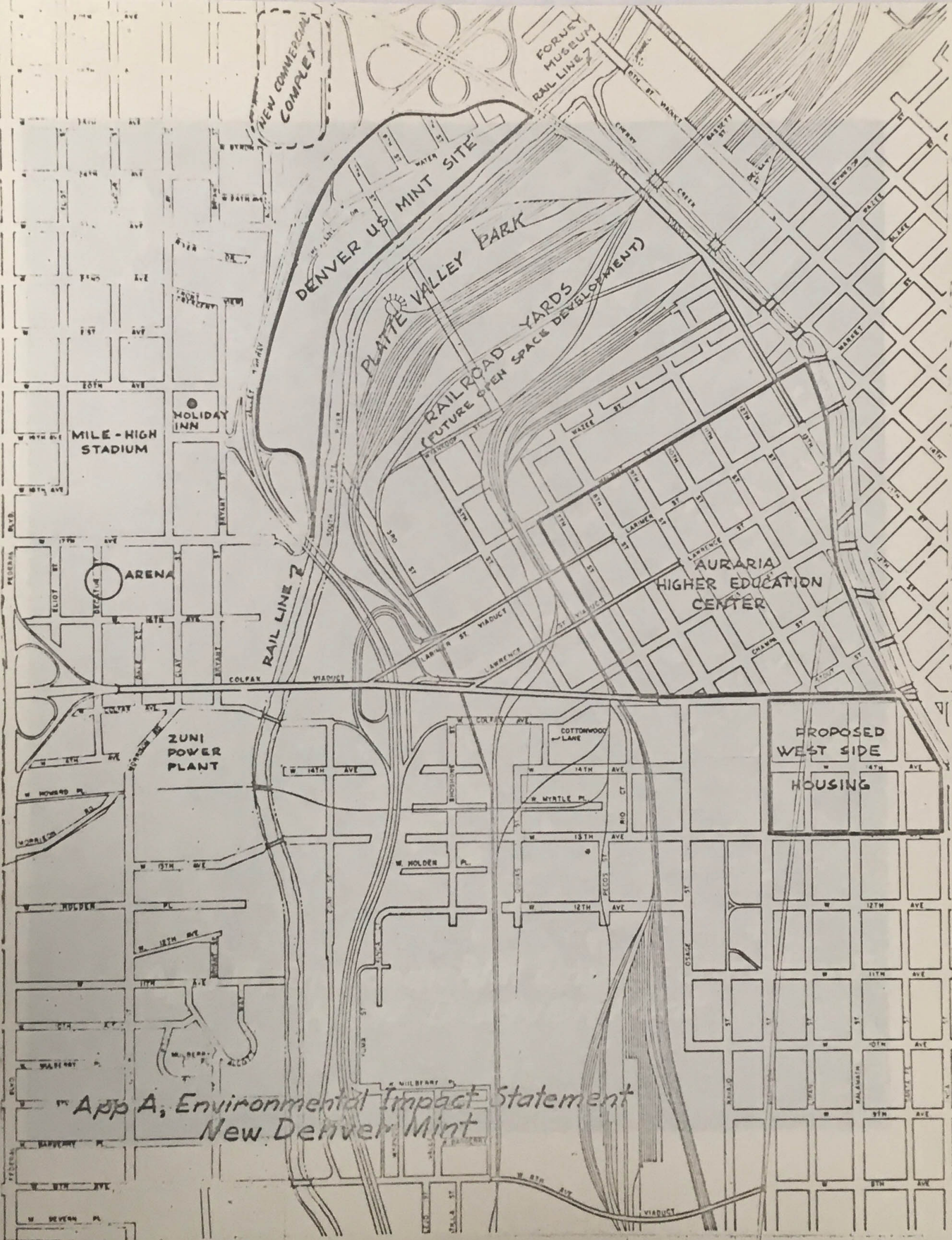
Labor and materials resources required for the construction of the project would be irreversibly committed.

Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

7. Problems and Objections Raised by Other Federal, State, and Local Agencies and by Private Organizations and Individuals.

No federal, state, or local agency, private organization or individual has expressed any opposition in substance to this proposed project. On the contrary, the comments of local, state, and federal agencies basically have been favorable to the project. The Environmental Protection Agency's letter of comment states that, "In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection." Other comments expressing general agreement/lack of objection have been received from the City and County of Denver, the Department of Defense, the Department of Housing and Urban Development, the Department of the Interior, the Colorado State Department of Highways, the Regional Transportation District, the Colorado Division of Wildlife, the State Historical Society of Colorado and the Denver Board of Water Commissioners. Comments from these agencies and from other agencies and organizations are attached hereto in Appendix C.

Some comments received on the proposed project did present concern regarding aspects of (1) preventing air and water pollution, (2) joint planning and coordination in the resolution of vehicular traffic problems, and (3) the availability of low and moderate income housing. The discussion of these matters has been expanded in the appropriate sections of this final statement from that presented in the draft statement in an attempt to resolve the issues raised in the various comments.



App A, Environmental Impact Statement
New Denver Mint



*App B, Environmental Impact Statement
New Denver Mint*

September 15, 1972

APPENDIX C

Attached hereto are copies of all comments received on the Draft Environmental Statement for the proposed new Denver Mint. These comments are arranged in the same order as listed in paragraph 5 of the Summary Sheet for this Final Environmental Impact Statement.

In accordance with the review system which the Environmental Protection Agency uses to appraise the merits of the comments on environmental statements, the comments for this project have been placed in Category B: General Agreement/Lack of Objection.

We appreciate the opportunity to review your comments, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Very truly yours,

John A. Smith
Regional Administrator

ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

SUITE 800 1060 LINCOLN STREET,
DENVER COLORADO 80203

September 25, 1972

Ref: AWIE

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

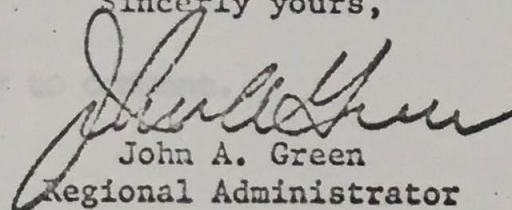
Dear Mr. Rhea:

The Environmental Protection Agency has reviewed the draft environmental impact statement for the proposed new Denver Mint. In general, the draft statement describes the project and the anticipated environmental impacts in a satisfactory manner. We suggest, however, that the third sentence of paragraph "f" on page 9 be revised to indicate that subsurface water seepages, and not process liquids, will be discharged as effluent into the South Platte River.

In accordance with the rating system which the Environmental Protection Agency uses to categorize the nature of its comments on environmental statements, our comments for this project have been placed in Category 1: General Agreement/Lack of Objection.

We appreciate the opportunity to review this statement, and look forward to continuing our relationship with you and your staff in the review of final plans and specifications for this facility.

Sincerely yours,



John A. Green
Regional Administrator

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

P. O. Box 17107, Denver, Colorado 80217

September 8, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the Draft Environmental Impact Statement for Construction of the New U. S. Mint, Denver, Colorado.

The statement is well prepared and appears to adequately cover the requirements of N.E.P.A.

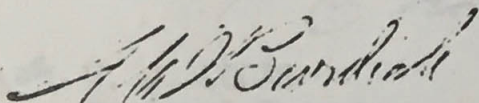
Our primary comment relates to Section 2.4, page 9 of the Statement. We believe the statement concerning pollution prevention and site protection during construction might be strengthened.

We have found that, while no laws or regulations appear to be violated, there is a serious problem in the Denver area caused by erosion from urban development sites. Because of the proposed Mint site location on the banks of the South Platte River, site erosion could degrade the River if proper protection is not afforded during construction.

In regard to the last sentence in Section 1, page 4, we bring to your attention the fact that recently a chemical company in the site area was fined through EPA action for killing fish in the South Platte River with an industrial discharge. Apparently, the fish in the South Platte are considered significant wildlife.

Thank you for the opportunity to comment.

Sincerely,



M. D. Burdick
State Conservationist



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

ROCKY MOUNTAIN REGION
BUILDING 85, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO

1940

September 26, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80401

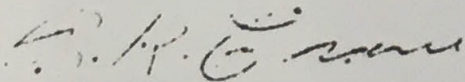
Dear Mr. Rhea:

Thank you for the opportunity to review the Draft Environmental Impact Statement for the proposed construction of the new United States Mint - Denver, Colorado.

I recommend that the visual impacts from important vantage points be evaluated and considered in the plans. This might involve coordinated planning between this area and the South Platte Development Project to create visual harmony.

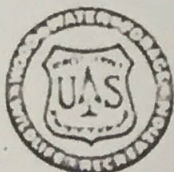
The proximity of Interstate 25 needs to be considered from the standpoint of noise and chemical pollution potential. I suggest Department of Agriculture Bulletin #246 "Trees and Shrubs for Noise Abatement," which is enclosed.

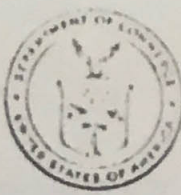
Sincerely,



W. J. LUCAS
Regional Forester

Enclosure





THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

September 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Unit
320 West Colfax Avenue
Denver, Colorado 80204

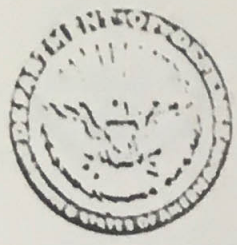
Dear Mr. Rhea:

Thank you for your August 7, 1972, letter to the Economic Development Administration which transmitted the draft environmental impact statement for the proposed new Denver mint. The Department of Commerce has reviewed the document and has no comment.

Sincerely,

A handwritten signature in cursive script, reading "Sidney R. Galler", is written over the typed name.

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs



DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
7410 U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

MROED-PE

12 September 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

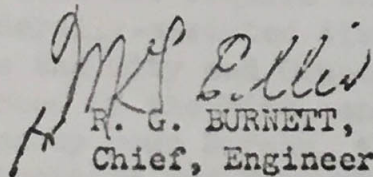
Dear Mr. Rhea:

I refer to your letter of 4 August 1972 transmitting the Draft Environmental Statement for Construction of New United States Mint - Denver, Colorado.

The draft statement appears to adequately discuss the environmental impacts of the proposed action. Your discussion of the problems involved in locating the facility in the South Platte River flood plain is well presented.

We appreciate the opportunity to comment on the subject draft statement.

Sincerely yours,


R. G. BURNETT, P. E.
Chief, Engineering Division



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 19th AND STOUT STREETS
DENVER, COLORADO 80202

REGION VIII

September 28, 1972

IN REPLY REFER TO:

8M

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Subject: Draft EIS, Denver Mint

Please excuse our delay in forwarding our comments on the subject statement. As you may know, we participated with GSA in the evaluation of many proposed sites in the Denver Metro area. The selected site was one of two sites which we recommended be given top consideration from the point of view of HUD's responsibility and involvement with the City and County of Denver.

In particular, we believe the selection will compliment Denver's renewal effort and assist in implementing the HUD-funded Platte River planning objectives. It is also our opinion that your statement on Page 13, Paragraph d, concerning the availability of low and moderate income housing to be accurate and significant.

Our only concern with your draft statement is on the matter of relocation benefits for those businesses and persons to be displaced from the site. As you may know, the Colorado Relocation Assistance Act of 1971 relates to Federally-assisted projects carried out by the state, or a state agency. It does not require any payment of any relocation benefits for nonfederally-assisted displacement activities. We believe that since the City and County of Denver is acting as the agent for the Bureau of the Mint, and displacement will occur after the site selection by your Bureau, the provisions and limitations of the Uniform Relocation and Property Acquisition Act of 1970, (PL-91-646), will apply as described in Section 208 of Title II of the Act.

As you may know, the Denver Urban Renewal Authority has been designated the central relocation agency in the city, and we recommend that you contact them. They should be in a position to assist you in complying with the requirements of Section 210 of Title II of the Act.

Thank you for the opportunity to review and comment on your Draft EIS.

Sincerely,

Michael T. Kastanek
 Michael T. Kastanek
 Assistant Regional Administrator
 Community Planning and Management

Mr. Frank M. Rhee
 Facilities Project Manager
 Bureau of the King
 Denver Area
 125 West Colfax Avenue
 Denver, Colorado 80202

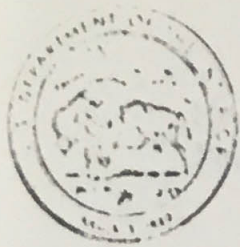
Dear Mr. Rhee:

This is in reply to your request of August 4, to the Department of the Interior for comment on the Draft Environmental Statement for the new Denver King, Denver, Colorado.

Our general comment is that the statement appears to adequately discuss and define the environment and the effects thereof of the proposed new site. However, some additional discussion of fish and wildlife values would appear to be appropriate. The statement that "There is no known wildlife of significance in the area" is only partially correct. The following is a listing of the more common species of the immediate area: shrews, voles, muskrats, muskrat rats, mice, feral house cats, feral pigeons, doves, ducks, starlings, English sparrows and several species of songbirds. Fish in the adjacent to the South Platte River which runs past the proposed King site. Several of the above-mentioned species are, at times, found in significant numbers and may be a threat to human health and safety, as well as being potentially damaging to commercial and residential buildings and public service facilities. This aspect of interaction between man and wildlife should be considered in greater detail.

The new King, rather than being a development, may have a desirable impact on the local environment through indirect effects. For example, construction of the King, involving water delivery, will thereby or greatly reduce the wet population of the immediate area. Aesthetic improvement may also result.

Our concluding are that the proposed construction on the adjacent site will have an indirect impact on the local wildlife species of wildlife found in the general area.



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

E3053
ER-72/959

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

SEP 19 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

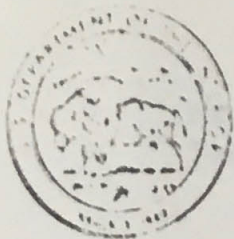
Dear Mr. Rhea:

This is in reply to your request of August 4, to the Department of the Interior for comments on the draft environmental statement for the new Denver Mint, Denver, Colorado.

Our general comment is that the statement appears to adequately discuss and define the environment and impacts thereon of the proposed new mint. However, some additional discussion on fish and wildlife values would appear to be appropriate. The statement that "There is no known wildlife of significance in the area." is only partially correct. The following is a listing of the more common species of the immediate site: skunks, raccoons, muskrats, Norway rats, mice, feral house cats, feral pigeons, doves, ducks, starlings, English sparrows and several species of non-game fish in and adjacent to the South Platte River which runs past the proposed Mint site. Several of the above-mentioned species are, at times, found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. This aspect of interaction between man and wildlife should be considered in greater detail.

The new Mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change. For example, construction of the Mint, assuming proper design, will destroy or greatly reduce the rat population of the immediate area. Aesthetic improvement may also result.

Our conclusions are that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area.



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

E3053
ER-72/959

SEP 19 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in reply to your request of August 4, to the Department of the Interior for comments on the draft environmental statement for the new Denver Mint, Denver, Colorado.

Our general comment is that the statement appears to adequately discuss and define the environment and impacts thereon of the proposed new mint. However, some additional discussion on fish and wildlife values would appear to be appropriate. The statement that "There is no known wildlife of significance in the area." is only partially correct. The following is a listing of the more common species of the immediate site: skunks, raccoons, muskrats, Norway rats, mice, feral house cats, feral pigeons, doves, ducks, starlings, English sparrows and several species of non-game fish in and adjacent to the South Platte River which runs past the proposed Mint site. Several of the above-mentioned species are, at times, found in significant enough numbers to cause a threat to human health and safety, as well as being potentially damaging to commercial and residential dwellings and public service facilities. This aspect of interaction between man and wildlife should be considered in greater detail.

The new Mint, rather than being a detriment, may have a desirable impact on the human environment through habitat change. For example, construction of the Mint, assuming proper design, will destroy or greatly reduce the rat population of the immediate area. Aesthetic improvement may also result.

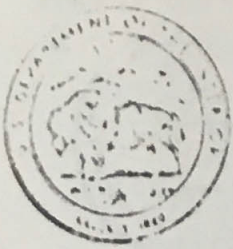
Our conclusions are that the proposed construction on the selected site will have no detrimental impact on those few desirable species of wildlife found in the general area.

Additionally, we believe the conclusion regarding the Rocky Mountain Arsenal as a possible alternative site, under "Alternatives to the Proposed Action" should be substantiated. For example, use of the Arsenal would provide a site without cost to the government, would not entail relocation of houses, businesses and people, and would not have as adverse an impact upon traffic patterns and congestion. Employees and tourist access to such a site would be excellent via three interstate highways, Stapleton Airport, and several railroad lines. We suggest the alternative section discuss the environment of the Arsenal and the impact of constructing the Mint thereon.

We appreciate the opportunity to comment.

Sincerely yours,

John E. Raybourn
for D. P. Shoup
Field Representative



United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

ER 72/959

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

September 27, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

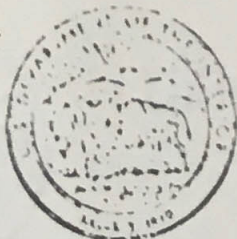
By letter dated September 19, 1972, Departmental comments were provided on the draft environmental statement for construction of the United States Mint, Denver, Colorado. Subsequent to that date, the enclosed comments were received from the Bureau of Mines and the U.S. Geological Survey.

These comments are forwarded for your information.

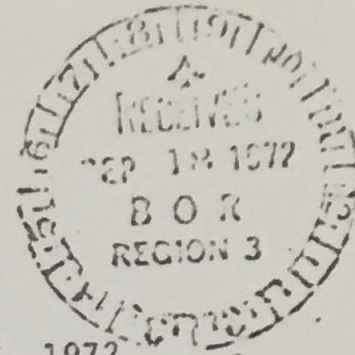
Sincerely yours,

John E. Raybourn
for D. P. Shoup
Field Representative

Enclosures 2



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D.C. 20240



ER-72/959

September 7, 1972

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver, Colorado
Through: Assistant Secretary--Mineral Resources *Wiley*
SEP 14 1972

From: Director, Bureau of Mines

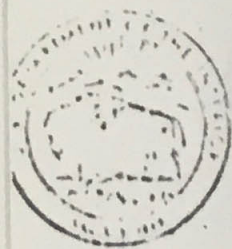
Subject: Draft environmental statement, Bureau of the Mint, construction
of United States Mint, Denver, Colorado

The draft environmental statement for construction of the proposed United States Mint, Denver, Colorado, has been reviewed. The new mint would be constructed on a 30-acre site on the west bank of the South Platte River in the City of Denver between the river and the Valley Highway (I-25) from about Eighteenth Avenue to Speer Boulevard. Proposed construction would include about 700,000 square feet of building space, parking areas, paved vehicular maneuvering area, installation of utilities, and landscaping. The South Platte River site was selected as the most favorable of several considered.

The proposed construction would have no direct effects, adverse or beneficial, on mineral resources. Although not in our area of concern, we believe the site to be a good choice because redevelopment would help bring about enhancement of the general area.

The environmental statement discusses a potential adverse feature of the site in that its location on the South Platte River flood plain could have serious implications if the upstream Chatfield Dam is not completed on schedule.

Elbert Z. Cobb
Director



United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICE OF THE DIRECTOR

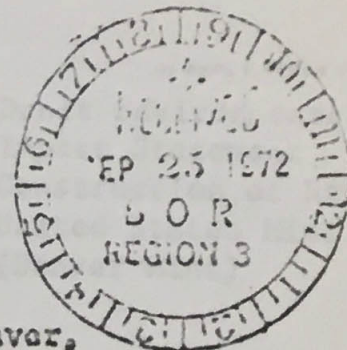
ER-72/959

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Denver, Colorado

From: Director, Geological Survey

Subject: Review of draft environmental statement on new Denver Mint, Denver, Colorado



We have reviewed the subject draft environmental statement as requested in a memorandum of August 10 from the Director, Office of Environmental Project Review. Our comments are as follows:

The third paragraph on page 4 contains a statement that the bedrock is Pierre Shale. The bedrock of the area is not Pierre Shale, but rather is Upper Dawson Formation.

In reference to sub-paragraph f, page 9, it is very likely that basement areas in the building will require special protection from seasonally high water-table conditions.

The assessment of the flood risk factor contained in sub-paragraph g, page 9, seems to be reasonable, especially considering the soon-to-be completed Chatfield Dam.

Noting Director

cc: Director, PEP, (advance) ✓
Gen. Files
Dir. Chron.
Mr. Coulter, GD
Mr. Davis, WRD

HGStewart:src:9/12/72



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION EIGHT
BUILDING 40, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

October 11, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

IN REPLY REFER TO:

Draft Environmental
Impact Statement
Construction of New
United States Mint
(Denver Mint)

Dear Mr. Rhea:

This is in response to your letter of August 4, 1972, in which you requested Federal Highway Administration review and comments on the Draft Environmental Impact Statement for the proposed new Denver Mint. In accordance with our review procedures, this letter will serve as the consolidated response of the Colorado Division Office and the Region 8 Office.

Except for a couple of minor items our comments will be directed mainly toward the impact upon the highway system.

Appendix A map, although supplemented with Appendix B aerial photo, is a rather outdated version which does not portray a complete picture of the local street system in the vicinity of the proposed project.

The statement, page 6 paragraph 1e, should be deleted as the widening of I 25 through the subject area has been accomplished.

At the top of page 6, (Section 2.2) the statement is made that traffic generated by the proposed project is "relatively negligible when measured against the 105,800 vehicles using the Valley Highway on an average weekday in 1971." The 105,800 vehicles is an accumulation of "relatively negligible" traffic generations, which if allowed to continue will result in the continued deterioration of traffic service. No traffic generator located in this corridor is negligible.

Mr. Frank W. Rhea
October 11, 1972
Page Two

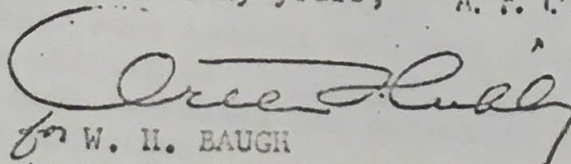
The matter of transportation deficiencies in the corridor of the Valley Highway has been recognized by the Colorado Department of Highways and the Federal Highway Administration and as a result preliminary studies have been programmed to further improve the corridor. We are pleased to note the recognition given in the environmental statement to these deficiencies and of the need for coordination for their resolution. We are particularly concerned as land necessary for the correction of deficiencies is not available within the existing right of way.

One of the Valley Highway's primary inadequacies is the lack of frontage or collector-distributor roads from Colfax Avenue north to the W. 38th Avenue interchange. To correct this will involve revision, elimination or relocation of the closely spaced interchanges at Speer Boulevard, W. 23rd Avenue and W. 19th Avenue. The Colorado Department of Highways has recently submitted a program for project FI 025-2(9) which includes funds for the consideration of environmental impacts and for preliminary engineering studies in this area. Another recently submitted program is for project M 7252(001) Blake-Market Streets, Federal Boulevard to 23rd Street.

With the developments proposed for the subject area and the proximate timing of the Denver Mint proposal and the transportation studies and subsequent proposals, it becomes apparent that joint-development and multiple-use considerations are necessary to assure the most functional project with the least environmental impact.

We welcome the opportunity to comment on the proposal and statement. We offer our continued cooperation and assistance in the development and preparation of the final environmental statement.

Sincerely yours, A. F. LEBY



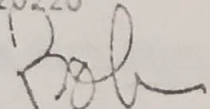
for W. H. BAUGH
Regional Federal Highway Administrator

cc: Colorado Division - 1
TEU (10) - 1
Secretarial Representative - Region- 1
CEQ - 5

ADVISORY COUNCIL
ON
HISTORIC PRESERVATION
WASHINGTON, D.C. 20540

October 5, 1972

Mr. Robert R. Fredlund
Director, Administrative Programs
Department of the Treasury
Washington, D. C. 20220

Dear Mr. Fredlund: 

Thank you for the copy of the draft environmental statement prepared by the Bureau of the Mint, Department of the Treasury, for the construction of the New United States Mint - Denver, Colorado. This draft statement was enclosed with your letter of August 28, 1972, as an example of additional materials detailing the Treasury's policy vis-a-vis historic preservation.

In order to alert you to our approach to the review of such statements, and because the present Mint is listed in the National Register of Historic Places, we thought it would be both useful and appropriate for us to give you our informal comments on the statement. Ms. Penny Lianos of your office indicated that you would be interested in such a response.

We appreciate the concern expressed in your letter and in the draft statement for the fate of the present Mint. However, the section referring to the Mint is the only mention of historic resources in the draft statement. There is no mention of the impact of the new Mint on historic resources. The statement would therefore be considered inadequate were it under our formal review. The Council staff would respond by asking for additional information from your agency indicating:

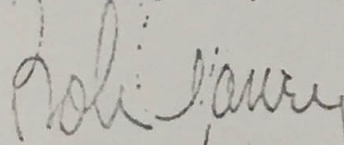
- a. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470(f)). The draft environmental statement must include evidence indicating that the most recent listing of the National Register of Historic Places has been consulted and either of the following conditions satisfied:

1. If no National Register property is affected by the project, a section detailing this determination must appear in the draft environmental statement.

2. If a National Register property is affected by the project, the environmental statement must contain an account of steps taken in compliance with Section 106 and a comprehensive discussion of the contemplated effects on the National Register property. (Procedures for compliance with Section 106 are detailed in the Federal Register of March 15, 1972, p. 5430.)
- > b. Compliance with Executive Order 11593 of May 13, 1972.
- c. That a comprehensive interdisciplinary study has been made of all archeological, historical, architectural and cultural resources extant in the proposed project area; the effects, if any, on these resources; and an account of steps taken to assure their preservation and enhancement.
- d. Contact with the Historic Preservation Officer for the State or Territory involved. In order to insure as comprehensive a review of historical, cultural, archeological, and architectural resources as possible, the Advisory Council would suggest that the draft environmental statement contain a copy of this officer's comments concerning the effect of the undertaking upon the resources listed in c), including properties of historic value not listed on the National Register.

We appreciate this opportunity to look at this draft statement as an example of your agency's policy in this area. We hope that our comments will be useful as the Mint statement goes into final form and as other statements are drafted in the future.

Sincerely yours,



Robert R. Garvey, Jr.
Executive Secretary

cc:

Dr. S.K. Stevens, 20 Center Drive, Camp Hill, Pennsylvania 17011

OFFICE OF ECONOMIC
OPPORTUNITY

EXECUTIVE OFFICE OF THE PRESIDENT
Region VIII
Federal Bldg., 1761 Stout St.
Denver, Colorado 80202

August 8, 1972

IN REPLY REFER TO: 8/CR

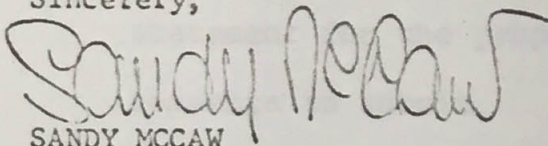
Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Your request for comments on the Draft Environmental Impact Statement for the proposed new Denver Mint, has been received by the Office of Economic Opportunity. This office has no comments to make regarding the project except to urge that the twenty families and several businesses who will be relocated in connection with the proposed project receive timely advice regarding the benefits for which they qualify under the uniform relocation act.

Thank you for providing us the opportunity to comment on your draft statement.

Sincerely,



SANDY MCCA
Governmental Relations Specialist



State of Colorado
DIVISION of COMMERCE and DEVELOPMENT
DEPARTMENT OF LOCAL AFFAIRS

600 State Capitol Annex, Denver, Colorado 80203, Area Code 303, 222-9911

John A. Love
Governor

Dwight E. Neill
Director

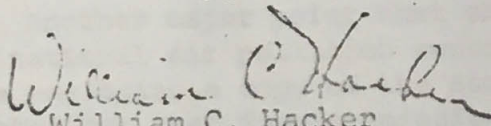
16 August 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft environmental impact
statement for the proposed Denver Mint and have no
comments to submit.

Sincerely,


William C. Hacker
Director
Community Development

WCH:nlhK



STATE OF COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

R. L. CLEURE, M.D., M.P.H., DIRECTOR

August 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We appreciate the opportunity to comment upon the Draft Environmental Impact Statement for the proposed new Denver Mint.

After careful study by the Air Pollution Control Division, we feel several major points should be considered. Initially, we are concerned about the proposed site of the new mint. The location is very poor from a meteorological point of view. Air pollutants accumulate along the Platte River valley, and tend to follow the river valley northward during nighttime and early-morning poor dispersion conditions. The Platte River valley, with adjoining highway system and local industry already is a major source of Denver air pollutants. Additional industries in this area must be designed for near zero air pollution emissions if we are ever to achieve national ambient air quality standards.

Another major point that should be considered is the current State and national air pollution control emission standards. Toward that end, I am enclosing a copy of the State rules and regulations. It should be pointed out that future emission regulations are now being prepared by both State and national agencies.

If the Colorado Air Pollution Control Division of the Department of Health may be of further service, please call upon us.

Cordially,

G. P. Wood, Ph.D., Director
Air Pollution Control Division
By:

Lindsay M. Tipton

Lindsay Tipton
Air Pollution Control Specialist
Planning Section
Air Pollution Control Division

LT:pc
Enclosure ...



COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111
R. L. CLEERE, M.D., M.P.H., DIRECTOR

August 11, 1972

Mr. Frank W. Rhea
Bureau of the Mint
230 West Colfax Ave.
Denver, Colorado 80204

RE: DRAFT Environmental Impact Statement
New Denver Mint

Dear Mr. Rhea:

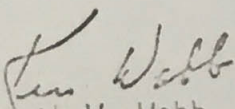
The impact statement referred to above has been reviewed by this Division.
Our comments are as follows:

- 1) Section 2.4 Item b, page 10. It is assumed from this statement there will be no effluents from this plant except as noted below.
- 2) Section 2.4 Item c, page 10. It is assumed from this statement that process cooling water will be recirculated for reuse and there will be no discharge of cooling water to the South Platte River. It is conceivable the South Platte adjacent to the proposed Mint site may be reclassified to warm water fishery in the future. We are therefore enclosing a copy of the Water Quality Standards for Colorado for your information. Your attention is called to item B 2.e page 5 in the event provisions are made to bypass the cooling towers for emergency or temporary use.
- 3) We request that adequate provisions be made to prevent an increase in turbidity of the S. Platte during the construction phase of the project.

We thank you for the opportunity to review this statement.

Very truly yours,

FOR DIRECTOR, WATER POLLUTION CONTROL DIVISION


Kenneth W. Webb, P.E.
Public Health Engineer

cc: Dr. Downs

enclosure: Water Quality Standards

STATE DEPARTMENT OF HIGHWAYS

CHAS. E. SHUMATE

EXECUTIVE DIRECTOR

DIVISION OF HIGHWAYS
LAURENCE C. BOWER
CHIEF ENGINEER

STATE OF COLORADO



COLORADO STATE PATROL
COL C WAYNE KEITH
CHIEF

4201 EAST ARKANSAS AVENUE • DENVER, COLORADO 80222 • (303) 757-9011

August 28, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
320 West Colfax
Denver, Colorado 80204

Dear Mr. Rhea:

Reference is made to your letter dated August 4, 1972, transmitting a draft Environmental Impact Statement as required by Section 102(2)(c) of the National Environmental Quality Act of 1969 for the proposed new Denver Mint.

The Colorado Department of Highways appreciates the opportunity to review this Draft Environmental Impact Statement concerned with the construction of the new United States Mint in Denver, Colorado.

This Department has no objection to the construction of the new Mint at the proposed South Platte River location.

After an on-site examination of the proposed project by personnel from the Department's Environmental Section, the statement in its present form appears to be complete and satisfactory.

If the Colorado Department of Highways can be of further assistance to you please feel free to contact us at your convenience.

Very truly yours,

CHAS. E. SHUMATE
Executive Director

CES:as

cc: Bower - Haase- Zulian
R. E. Heathcote
Harvey Atchison

DIVISION OF WILDLIFE

Harry R. Woodward, Director

6060 Broadway

Denver, Colorado 80216 • 826-1192

75th Anniversary - 1897-1972

September 20, 1972



Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Division of Wildlife has reviewed the Draft Environmental Statement entitled "Construction of a New United States Mint - Denver, Colorado" and offers the following comments:

A sub-heading is needed to separate the Project Description from the description of the existing environment.

Game species in the area include muskrat, mink, song birds, waterfowl and other migratory birds. Populations are small. Fish species include channel catfish, a few trout and rough fish. The Division of Wildlife has been planting catfish in the South Platte River near the project area for several years.

We recommend that all facilities for treatment of chemical effluent and oils be located out of the flood plain to prevent contamination of the South Platte River through flooding or leakage.

This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area.

We appreciate the opportunity to comment on the statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harry R. Woodward".
Harry R. Woodward
Director

DS/cb

cc: T. W. Ten Eyck
E. P. Cook

STATE OF COLORADO

John A. Love, Governor

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WILDLIFE

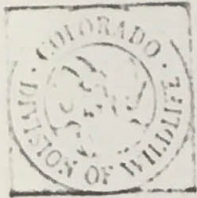
Harry R. Woodward, Director

6060 Broadway

Denver, Colorado 80216 • 825-1192

75th Anniversary - 1897-1972

September 20, 1972



Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Division of Wildlife has reviewed the Draft Environmental Statement entitled "Construction of a New United States Mint - Denver, Colorado" and offers the following comments:

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Game species in the area include muskrat, mink, song birds, waterfowl and other migratory birds. Populations are small. Fish species include channel catfish, a few trout and rough fish. The Division of Wildlife has been planting catfish in the South Platte River near the project area for several years.

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This project, in conjunction with pollution control and proper development of open space, will make it possible to enhance wildlife resources in the area.

We appreciate the opportunity to comment on the statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harry R. Woodward".
Harry R. Woodward
Director

DS/cb

cc: T. W. Ten Eyck
E. P. Cook

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

January 16, 1973

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

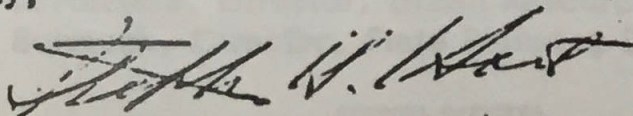
As State Liaison Officer for the National Historic Preservation Act of 1966, I have been asked to review the Draft Environmental Impact Statement for the construction of a new United States Mint at Denver and to provide comments relative to the impact of the project on historical, archaeological, architectural and cultural resources.

According to our records, the only property of significance located within the project area, is a two-story residence located at 2345 Seventh Street. Built circa 1889, the house has been identified as the residence of the brewmaster of Denver's historic Zang Brewery. It should be noted, however, that while the building is of some architectural and historical interest, we do not propose to nominate it to the National Register of Historic Places.

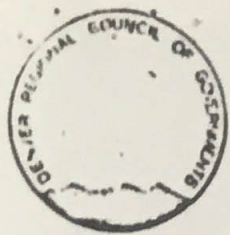
Our greatest concern at this early stage in planning is that the proposed project might have an adverse effect on the present Denver Mint building. Notable among Denver landmarks, the Mint was entered in the National Register of Historic Places on February 1, 1972. I would, therefore, strongly urge you to consider the continued public use of this historic landmark as a key planning element. I would welcome the opportunity to discuss this matter with you at greater length, as planning for the new Mint progresses.

I appreciate the opportunity to comment on the project proposal as an expression of your concern for historic preservation.

Sincerely,



Stephen H. Hart
Colorado State Liaison Officer



DENVER REGIONAL COUNCIL OF GOVERNMENTS

1776 SOUTH JACKSON STREET • SUITE 200 • DENVER, COLORADO 80210 • 758-5166

September 20, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Subject: EI/008-72 Draft Environmental Impact Statement for
Construction of the New U. S. Mint in Denver, Colorado

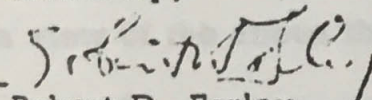
Dear Mr. Rhea:

Reference is made to your letter and enclosure of August 4, 1972, concerning review of the draft Environmental Impact Statement for Construction of the New U. S. Mint in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (Public Law 01-100). In response to your communication, we have notified concerned and affected jurisdictions and agencies in the region and have made available to them copies of the draft Environmental Impact Statement. In addition, the Council has reviewed the Statement as it relates to the Council of Governments' concern with areawide planning and development.

Enclosed are the comments that were made on the draft Environmental Impact Statement.

The Council of Governments appreciates this opportunity to be of service to your agency.

Sincerely,


Robert D. Farley
Executive Director

Enclosure

cc: Mayor W. McNichols, Jr., COG Representative, City & Co. of Denver
Councilman I. Hook, COG Representative, City & Co. of Denver
H. Cook, Director of Public Works, City & Co. of Denver
A. Canter, Director, Denver Planning Office
L. LaPerriere, Director, Urban Resources Development Agency
P. Schmuck, Director, State Planning Division

COUNCIL OFFICERS

EUGENE PORTIER Secretary/Treasurer

THOMAS E. KRISTOFIT Chairman

GUY R. SANDERS Vice Chairman

ROBERT D. FARLEY Executive Director

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JACK L. TREZISE
Jeff. Co. Comm.

*Chairman

**Vice Chairman

COMMENTS ON EI/008-72
U. S. Mint Draft Environmental Impact Statement

DRCOG Staff: The DRCOG staff in general finds that the draft statement addresses and answers all issues in accordance with the National Environmental Policy Act.

The following comments relate primarily to the statements on the impact of the relocation of the U. S. Mint facilities in terms of: (1) those households currently located on the proposed site which will be required to relocate elsewhere; and (2) the Mint's present employees, particularly those of low- and moderate-income, whose residence-employment transportation pattern will be altered by the facility move.

There are two Federal Register citations regarding the location and relocation of federal facilities: (1) "Consideration of Socioeconomic Impact when Selecting Locations for Federal Buildings" -- FR, Volume 36, No. 231, Wednesday, December 1, 1971; and (2) "Procedures for Assuring Availability of Housing on Nondiscriminatory Basis for Low- and Moderate-Income Employees" -- FR, Volume 36, No. 239, Saturday, December 11, 1971. The intent of the two citations is to outline federal agency policy regarding the location and relocation of federal facilities and both the impact of such activities on current and projected federal employees, as well as the opportunities provided in such moves in furtherance of national housing goals and objectives in expanding the supply of low- and moderate-income housing available to federal employees involved in facility locations and relocations. The two citations are explicit as to the federal agency responsibilities in seeing that this intent is both pursued and achieved.

In view of the above there is a need for explicit "plans" regarding:

- (1) The relocation of the 20 families involved on the proposed site; and
- (2) The provision of alternative housing to both present and potential low- and moderate-income Mint employees, due to the relocation of the facility.

The substance of both plans would be a clear demonstration of sufficient availability of low- and moderate-income housing for both employees and relocatees.

The area in question is shown on the adopted DRCOG Regional Development Plan as commercial and services.

The comments should not be construed as critical of the Environmental Impact Statement itself, but only to outline an area of concern that appears to need further consideration. (September 7, 1972)

Denver Planning Office: (See the attached letter, dated September 19, 1972)

September 20, 1972

cjm

Regional Transportation District

56 Steele Street
Denver, Colorado 80200
303/399-8140

September 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

In response to your request, our review of the Draft Environmental Impact Statement for the proposed new Denver Mint has produced the following comments:

1. The name used in the report in reference to the public transportation agency should be corrected in all instances to read the "Regional Transportation District."
2. Section 2.2, beginning on page 5, should include a stronger statement concerning required coordination between site planning for the new Mint and planning for public transportation in the immediate vicinity, as well as within the entire metropolitan region. Such coordination may have a significant impact on employee and visitor traffic at the site, and site access. RTD has several planning proposals which have a direct relationship to the proposed new Mint location. We would be glad to discuss our proposals with you to begin to develop the necessary coordination.
3. The fact that the Department of Highways is also preparing to investigate a location for a new highway facility, the Market/Blake Parkway, in the immediate area, points out the need for total coordination between all agencies involved to assure consistency in overall planning.
4. With respect to public transportation, we see no adverse environmental affects from the proposed relocation of the Mint. We do feel that the opportunity to work together can permit the development of an optimum transportation connection to the mutual benefit of the Mint, the public transportation system, and the entire Denver region.

Please feel free to contact me at any time you wish to discuss the situation.

Yours very truly,

Harry L. Parrish Jr.
Harry L. Parrish, Jr.
Executive Director

METROPOLITAN DENVER SEWAGE DISPOSAL DISTRICT NUMBER ONE

3100 EAST 60TH AVENUE • COMMERCE CITY, COLORADO 80022 • PHONE: 303-288-6613

WILLIAM E. KORBITZ, P. E.
MANAGER

FRED E. HENDRICKSON
HAROLD V. COOK
MARY B. O'DELL
WILLIAM E. KUHN

CHAIRMAN
CHAIRMAN PRO TEM
SECRETARY
TREASURER

August 10, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 W. Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We have reviewed the draft of the Environmental Impact Statement which you sent to us on August 4, 1972. As mentioned in the statement, the District is proposing to construct a sanitary interceptor sewer which will generally parallel the South Platte River on the west side. The design of this facility was in its final stages when information was received that the new mint may be located at the now proposed site. Design was, therefore, based on the location of existing roads and buildings.

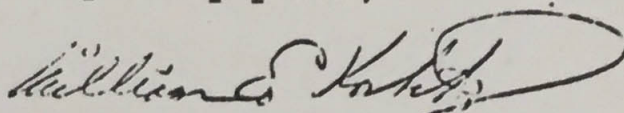
Since this land is presently the property of the City and County of Denver, our contacts have been with the City Engineer. Plans for the sewer have been sent to him for review. Should a conflict exist between our present alignment and your plant facilities, we, along with our consulting engineer, would be happy to meet with you to discuss a possible modification.

Since our available tolerances on both grade and alignment are very close through this area, we would greatly appreciate the cooperation of your office and the City and County of Denver in working out a solution which

Mr. Frank W. Rhea
Page 2
August 10, 1972

will be to the benefit of all concerned. Our present plans call for this project to go under construction in early 1973; therefore, if any conflict exists, we would appreciate a response from you or the City in the near future.

Very truly yours,



William E. Korbitz, P.E.
Manager

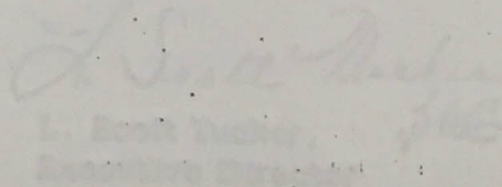
WEK:ble

cc - Jack Keller
Fred Hendrickson
Jack Bruce

This letter regards your request for comments you have regarding the environmental impact statement for the proposed new Denver Mint. The proposed mint is located in the South Platte flood plain of the South Platte. Planning is based on the closure of Chatfield as scheduled by the Corps in 1973 and flood proofing against the Standard Project Flood. After Chatfield, the intermediate regional flood will be retained within the Platte channel and this aspect is covered in detail in the draft you provided.

One aspect that is not covered, however, is the drainage tributary to the site from the west. The site is located at the base of a drainage area of approximately 500 acres that is a tributary to the Platte. This area is highly developed and includes the Valley Highway. Site planning should recognize the tributary drainage. I point this out for your information and do not think it will provide any problems that can not be easily handled.

Sincerely,





L. Scott Tucker, Executive Director

August 25, 1972

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This letter regards your request for comments you have regarding the environmental impact statement for the proposed new Denver Mint. The proposed mint is located in the South Platte flood plain of the South Platte. Planning is based on the closure of Chatfield as scheduled by the Corps in 1973 and flood proofing against the Standard Project flood. After Chatfield, the Intermediate Regional flood will be retained within the Platte channel and this aspect is covered in detail in the draft you provided.

One aspect that is not covered, however, is the drainage tributary to the site from the west. The site is located at the base of a drainage area of approximately 800 acres that is a tributary to the Platte. This area is highly developed and includes the Valley Highway. Site planning should recognize the tributary drainage. I point this out for your information and do not think it will provide any problems that can not be easily handled.

Sincerely,

L. Scott Tucker
L. Scott Tucker,
Executive Director

TELEPHONE 534-0105 • 161 E. 56TH AVENUE • DENVER, COLORADO 80216

Executive Committee:

John J. Nicholl
Arapahoe County
Kenneth D. Mitchell
City of Brighton
James Van Buskirk
Boulder County
Irving S. Hook
City of Denver
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Engineer

Members:

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Engineer
David A. Curtis
Douglas County



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

September 19, 1972

Mr. Robert Farley, Executive Director
Denver Regional Council of Governments
1776 South Jackson Street
Denver, Colorado 80210

ATTENTION: Duane Ebertowski

SUBJECT: Denver Planning Office review
of Draft Environmental Impact Statement
on new United States Mint

Dear Mr. Farley:

Thank you for the opportunity to review the Draft Environmental Impact Statement prepared by the Bureau of the Mint, Department of the Treasury related to the construction of the new United States Mint in the City and County of Denver. Our general reaction to the statement is that it satisfies the needs and addresses the issues that we understand are intended in the requirements for an Environmental Impact Statement. We are generally satisfied with the location of the Mint and the evaluation of the environmental issues involved, as described in this statement.

However, we would like to call to the attention of the drafter of this statement that there are a few corrections that we would like to see made, as follows:

1. On page 3, at the end of the fourth full paragraph, delete the words "combination residential and commercial building", and replace with the words "office building complex."
2. On page 4, first paragraph, second line "Denver Planning Commission's" should read "Denver Planning Office's". On the 4th line, insert "and" between "east" and "a Flatte River Park" and insert a period after the phrase "(presently railroad yards)" and delete the remainder of that sentence.
3. On page 4, in the last paragraph, change "Denver Planning Commission" to "Denver Planning Office".
4. On page 6, in the first full paragraph, change "Denver Planning Commission" to "Denver Planning Office". Also, on page 6, under item c., change "The location of the proposed Market Street throughway" to "The location of the proposed Market-Blake Parkway" and under item d., change

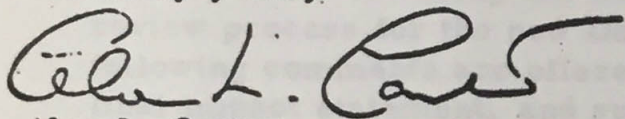
Mr. Robert Farley
September 19, 1972
Page 2

"The location of the proposed mass transit "People Mover" connecting downtown" to "The location of the proposed personalized rapid transit (PRT) "People Mover" connecting downtown" and in the same sentence, change the "Bears Stadium" to the "Mile High Stadium".

5. On page 6, delete item e. entirely and change item f. to a new item e.
6. On page 14, under item b. change the "Denver Planning Commission" to the "Denver Planning Office."

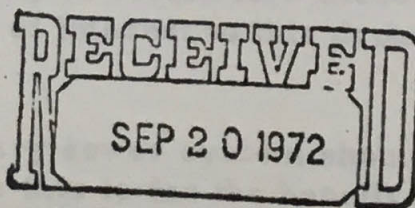
Again, thank you for the opportunity to review this Draft Environmental Impact Statement. We would be anxious to receive a copy of the final statement when it is prepared.

Sincerely yours,



Alan L. Canter
Director of Planning

ALC/AGA/jp



D. R. C. O. G.

JAMES L. OGILVIE
Secretary-Manager



Board of Water Commissioners

144 West Colfax Avenue Denver, Colorado 80202 Phone 222-5511
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August 18, 1972

Mr. Frank W. Rhea
Facilities Project Manager
U.S. Department of the Treasury
Bureau of the Mint, Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for including the Water Department in your information and review process for the new Denver Mint. As per your request, the following comments are offered in connection with development of your final impact statement, and subsequently in the development of your new Denver Mint.

First, I would like to address the problems of water facilities and supply. It may be in the best interest of the Mint and the Water Department if you would contact the Department's Marketing Section at the earliest possible date. Mr. P. K. Bryant of that section will be able to provide you information on policy and procedures for relocating and/or extending water mains, arranging for taps from mains, and the potential water supply available (such as rates of flow and pressures). Your plans and scheduling may be affected by construction of a water supply.

Secondly, I will send you, under separate cover, a copy of our 1971 Water Quality Report. I'm sure it will be of use to your process design consultants. I will appreciate the opportunity of reviewing the plans and specifications for the water pollution control system.

Third, the estimated quantity of water necessary for both industrial and domestic use, the quality and quantity of return flow directly to Platte River and periods of discharge are of interest to this department's successive use program.

Finally, any discharge to the sanitary sewer system should be qualitatively summarized. The basic reason for this is for the benefit of Metropolitan Sewage District No. 1, who has to treat the sewage, and for the Water

Mr. Frank Rhea

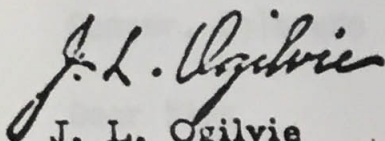
August 18, 1972

Page 2

Department, who, in the near future, will develop a portion of this effluent as successive use water. We would also appreciate being informed of any additional parameters that may be placed upon our project by your proposed development, through changes in water quality.

I am sure that the new Mint would esthetically add to the area and wish you success in implementation of the project.

Sincerely,



J. L. Ogilvie
Manager

JLO/ee

THORNE
ECOLOGICAL
INSTITUTE

1405 Broadway

XXXXXXXXXXXXXXXXXXXXX.

BOULDER, COLORADO 80302 (303) 443-4444

7371

August 30, 1972

Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Sir:

We have reviewed the draft environmental impact statement relating to the construction of the new U. S. Mint in Denver. We have kept our comments brief but I think they will suffice to show the area of interest:

1. The proposed location will increase air pollution from vehicles -- tourists as well as mint works -- in an area that already naturally serves as a settling basin for smog.
2. Is there an absolute guarantee that air pollution from smelting, metal work, et al will be eliminated by the devices proposed to be used? Have these devices been thoroughly tested under similar situations? It is our understanding that there are still technical problems to be solved.
3. It is possible that sewage waste contamination might occur to the South Platte River at a time of flooding through "back flushing" because the proposed new Mint building will be located on a flood plain and at or near the possible flood level at times.
4. We might suggest an operational stipulation to include continuous monitoring of all effluents to the South Platte River be conducted to assure no escape of heavy metals, trace elements, and acids to the river as the result of metal operations, handling, cleaning, washing down, etc.

TRUSTEES

MR. V. PETER CLINE
MR. H. STANLEY DEMPSEY
DR. DON L. EICHER
DR. JOHN W. MARR
MRS. ELIZABETH N. PAEPCKE
MR. RICHARD H. PUGH
MISS AMY ROOSEVELT
MR. RALPH SARGENT, JR.
DR. OAKLEIGH THORNE, II
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DR. BEATRICE E. WILLARD
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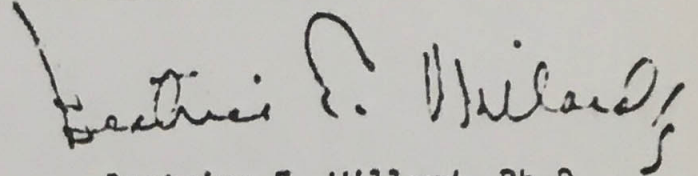
DR. ALBERT E. BURKE
MR. FRED B. FARR
DR. FRANK B. GOLLEY
MR. ROGER P. HANSEN
MR. DONALD W. HOAGLAND
DR. ALBERT W. JOHNSON
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MR. EDWIN THORNE
MRS. ELIZABETH C. TITUS
DR. GEORG TREICHEL

August 30, 1972

Thank you very much for the opportunity to review this impact statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "Beatrice E. Willard". The signature is written in a cursive style with a large, looping initial 'B'.

Beatrice E. Willard, Ph.D.
President

BEW:sjs

Sault Plateau Fossil File

DEC - PH STA Final File

May 29, 1979

CONSTRUCTION OF NEW UNITED STATES MINT

DENVER, COLORADO

Final Revised Environmental Impact Statement

May 29, 1974

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO

CONSTRUCTION OF NEW UNITED STATES MINT

DENVER, COLORADO

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Final Revised Environmental Impact Statement

May 29, 1974

May 29, 1974

U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220

NEW UNITED STATES MINT
DENVER, COLORADO

() Draft

(X) Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:

CONSTRUCTION OF NEW UNITED STATES MINT
DENVER, COLORADO
320 West Colfax Avenue
Denver, Colorado 80204

Final Revised Environmental Impact Statement

1. Type of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and auxiliary support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be 1,000,000 square feet. The Treasury Department is conducting a study of two sites without favoring either location until the final decision is made. The two sites are (1) the northwest corner of the Denver Federal Reserve at Park Hill in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would secure the required production of high quality coins for the United States.

Prepared by

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

3. Summary of Environmental Impacts: May 29, 1974

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which the operation will bring to the area, (2) the addition of stationary source and vehicle-generated air pollutants, (3) some adverse economic and social effects if Denver if the new mint were located outside of the City, and (4) the various short-term impacts during construction.

Prepared for

U. S. Department of the Treasury
Main Treasury Building
Washington, D. C. 20220

4. Major Alternatives

- Continuation of the operation of the present Denver Mint without constructing a new facility.
- Construction of a new mint at some other location.

NEW UNITED STATES MINT
DENVER, COLORADO

() Draft (X) Final Environmental Statement

Responsible Office: Bureau of the Mint
Treasury Department, Washington, D. C.
For additional information contact:
Frank W. Rhea
Denver Mint, 320 West Colfax Avenue
Denver, Colorado 80204
Telephone: (303) 837-4556

1. Name of Action: (X) Administrative Action () Legislative Action

2. Description of Action: Construction of a combination of high-bay, one-story buildings and multistory support/administrative buildings, all comprising the new Denver Mint. Auxiliary construction would consist of parking areas, paved vehicle maneuvering areas, all necessary utilities and landscaping. Total gross building space would be about 700,000 square feet. The Treasury Department is considering two possible sites, without favoring either location until this statement, including the comments on the draft statement, has been evaluated. The two sites are (1) the northwest corner of the Clayton Trust Property at Park Hill in Denver, and (2) the northwest corner of the Denver Federal Center in Lakewood. The State of Colorado, the City and County of Denver, the City of Lakewood and Jefferson County would be affected by this proposed action. The proposal would assure the required production of high quality coins for the United States.

3. Summary of Environmental Impacts and Adverse Environmental Effects:

The proposed facility should provide an appropriate and beneficial use of either potential site. Adverse environmental impacts of the proposal are (1) the increase in automotive traffic which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, (3) some adverse economic and social effects on the City of Denver if the new mint were located outside of the City, and (4) the various short-term impacts during the construction period.

4. Major Alternatives Considered:

- a. Continuation of the operation of the present Denver Mint without constructing a new facility.
- b. Construction of a new mint at some other location.

5. Written Comments on the Draft Revised Statement for This Proposed Project Have Been Received From the Following:

United States Congresswoman Patricia Schroeder	Page Number
Environmental Protection Agency	
Department of Agriculture	1
Department of the Army, Corps of Engineers	
Department of Health, Education and Welfare	1
Department of Housing and Urban Development	
Department of the Interior	4
Department of Transportation	
Advisory Council on Historic Preservation	and, Policies
General Services Administration	8
Office of Economic Opportunity	
State of Colorado Department of Health	10
State of Colorado Department of Highways	
State Historical Society of Colorado	Materials, Employees
Colorado Division of Planning (State Clearing House)	11
Denver Regional Council of Governments (Regional Clearing House)	
Regional Transportation District	13
Metropolitan Denver Sewage Disposal District Number One	
City of Aurora	24
City of Brighton	
City and County of Denver	Environmental Consequences
Board of Water Commissioners, City and County of Denver	26
Denver Chamber of Commerce	on Proposed Action
City of Lakewood	33
Lakewood Chamber of Commerce	on Environmental Effects
Jefferson County	36
Greater Park Hill Community Inc.	on Short-Term and Long-
League of Women Voters of Denver	37
Professor John Marr, University of Colorado	
Elmer Metcalfe	Irreversible and Irretrievable Commitments

6. Dates on Which Statements Made Available to the Council on Environmental Quality and the Public:

Draft Revised Statement - February 27, 1974

Final Revised Statement - May 29, 1974

Appendix A-1 - General Location Map

Appendix A - Map of Clayton Trust Property Area (Park Hill)

Appendix B - Aerial Photograph of Clayton Trust Property Area (Park Hill)

Appendix C - Map of Denver Federal Center Area

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Appendix D - Aerial Photograph of Denver Federal Center Area

Appendix E - Classification and Wage Scale of Denver Mint Employees

Appendix F - Comments Received on Draft Revised Statement

1. Project Description

a. Basic Requirements

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year, but the growth in coinage demand has been such that more recent studies and projections indicate that the total requirements by 1980 may be as high as 18 billion coins per year. Total production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the function of producing domestic coins of all denominations, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administration and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/area requirements are planned for inclusion in the new mint:

(a) Primary Functions

Melting and casting of various metals and alloys, strip rolling and shearing, strip stretching, blanking, blank annealing and cleaning, spooling, counting, counting and weighing, packaging of the case of proof coins and medals, and coin storage.

FINAL REVISED ENVIRONMENTAL IMPACT STATEMENT
NEW UNITED STATES MINT
DENVER, COLORADO

1. Description of the Proposed Action.

1.1 Project Description.

a. Basic Requisites

It is proposed to construct a new mint to assure production of high quality coins in sufficient quantities to meet the requirements of the people of the United States.

In a study completed in May of 1969, the Treasury Department concluded that the total demand for domestic coins in 1980 would be 12 billion coins per year, but the growth in coinage demand has been such that more recent studies and projections indicate that the total requirement by 1980 may be as high as 18 billion coins per year. Total production capacities of the existing mints at Philadelphia and Denver, and the Assay Office in San Francisco, fall far short of the 1980 coin requirements. A new mint will be required with a capacity of approximately 10.5 billion coins per year by 1980. Building space and outside areas in the present United States Mint institutions, including the present Denver Mint, which has a capacity of about 4.0 billion coins per year, are saturated, and it is not feasible to expand these facilities.

The proposed new mint would have the mission of producing domestic coins of all denominations, plus some production of foreign coins, proof coins and medals. It is the intent of the Treasury Department that the new mint would perform essentially all functions involved in coin production, starting with the receipt of virgin metal and proceeding through the process steps to the production, storage and shipment of finished coins and medals. Necessary administrative and production support space and facilities are to be included in the mint, including a tourists' observation gallery.

The following specific functions/space requirements are planned for inclusion in the new mint:

(1) Primary Functions

Melting and casting of various metals and metal alloys, strip rolling and cleaning, strip slitting, blanking, blank annealing and cleaning, upsetting, coining, counting and bagging, packaging in the case of proof coins and medals, and coin storage.

(2) Direct Support Functions

Assay and quality control, die production from the hub stage, building and production equipment maintenance and repair, shipping and receiving (coinage metal, coins and supplies) and warehousing.

(3) Administrative Support Functions

Mint Staff (Superintendent, Deputy Superintendent, Accounting, Automatic Data Processing, Personnel, Supply and Purchasing, Safety and Security), visitors' gallery, numismatic sales, cafeteria, conference rooms and training areas, vehicle parking (employees and visitors), and other miscellaneous office space.

Current planning for the new mint is based on completion of both construction and installation of production equipment by mid-1979. After a phase-in operational period, and relocation of equipment, furniture, supplies and personnel from the present Denver Mint, full operation of the new mint is planned to commence in early 1980.

The present Denver Mint is listed in the National Register of Historic Places. The use of this historic landmark after completion of the new mint cannot be determined finally at this time. Due to the inherent uncertainties involved in projecting coinage demand, it is possible that this facility might be continued in use as an auxiliary to the new mint. Alternatively, it could be remodeled and renovated to provide for another use, such as office space, for the Federal Government or for the City and County of Denver. In any event, the provisions of Executive Order 11593 of May 13, 1971 will be applied with respect to this National Register property.

The new mint is being planned for year 1980 production capacity of 10.5 billion domestic coins per year and 25 million proof coins and medals per year, on the basis of operating the facility 3 shifts per day, 5 days per week, 240 days per year. The new mint would be designed and constructed to provide space for expansion of critical operations and to provide for reasonable expandability of the entire facility to accommodate increased production requirements as they develop in future years. An ultimate capacity of 28 billion coins per year is foreseen at this time.

Detailed design of the new facility has not been started at this date. However, based upon careful analysis of the functions to be performed and required capacities of the various production processes, the following definitions of the scope of the proposed new mint have been determined:

- (a) A site consisting of a minimum of 30 acres.
- (b) Building space of approximately 700,000 square feet.

It is proposed to design and construct a new mint which would provide structures and surrounding grounds that reflect the importance and dignity of the special function of the United States Government to be performed in the facility, would be in harmony with and enhance the area where it is located, and would provide for the important tourist aspects of the facility.

b. Proposed Alternative Sites

At this time the Treasury Department is proposing two alternative sites for the new mint, without favoring either location until this statement, including the comments on the draft statement, has been evaluated. The two proposed alternative sites are:

Site A - The northwest corner of the Clayton Trust Property at Park Hill in the City and County of Denver, near the intersection of Colorado Boulevard and Smith Road. (See General Location Map, Appendix A-1, site map, Appendix A, and aerial photograph, Appendix B.)

Site B - The northwest corner of the Denver Federal Center in the City of Lakewood, near the intersection of Union Street and the West Sixth Avenue Freeway. (See site map, Appendix C, and aerial photograph, Appendix D.)

The proposed sites would supersede the previously selected site along the west bank of the South Platte River, extending from about 18th Avenue to Speer Boulevard. The South Platte site was discussed in detail in a Final Environmental Impact Statement dated February 2, 1973. This site has been abandoned because of the incompatibility of having the new mint on a long, narrow strip of land immediately adjacent to the mainline north-south railroad trackage through Denver, which the Burlington Northern Railroad Company plans to construct on the west bank of this reach of the South Platte River. Due to the size of the proposed mint structures and constricted width in the center portion of the site, the layout of the mint on this property would require large building complexes at the two end portions of the area, with about 1,000 feet of open space in between. This situation, coupled with the planned raised grade of the railroad tracks to avoid potential South Platte River floods, would make the frequent heavy train traffic highly apparent to the many public visitors (approximately 250,000 per year at the present mint), to the mint personnel themselves, and to observers from the surrounding highways and other areas. These conditions, which also would accentuate the inherent operational difficulties of this site, would be completely out of

harmony with the envisaged new mint, which is being planned to serve as an important tourist attraction and to reflect the importance and dignity of the United States Government coinage operations that would be performed in the facility. The Treasury Department had no knowledge of plans to place mainline railroad trackage in such close proximity to the mint property until October 1973, some six months after the formal South Platte site agreement between the City of Denver and the United States Government was signed on May 24, 1973.

c. Project Legal Authority

The Act of August 20, 1963, Public Law 88-102 (31 U.S.C. 291 et seq.) authorizes the Secretary of the Treasury, acting through the Administrator of General Services, to design, construct, furnish and equip such buildings as may be required in connection with the operations of the Bureau of the Mint and to acquire suitable sites for such buildings. In accordance with that authority, in its fiscal year 1972 appropriations request, the Department proposed \$1.5 million for the acquisition of a site to construct a new facility in replacement of the present Denver Mint. In the Act of July 9, 1971, Public Law 92-49, the Congress appropriated the requested funds. For fiscal year 1973, the Congress appropriated an additional \$2 million for the construction of the new facility (Act of July 13, 1972, Public Law 92-351).

Section 3495 of the Revised Statutes, as amended (31 U.S.C. 261), provides that "The different mints and assay offices shall be * * * the mint of the United States at Denver." The statutory language, while clearly requiring that the new facility be located in the Denver area, leaves administrative discretion to select a site for the new facility either within or outside the corporate limits of the City and County of Denver. As the word "at" has been judicially construed, it connotes "nearness" or "proximity" to a particular place.

Thus, location of the new mint at either site considered in this statement would fulfill the statutory requirement.

1.2 The Existing Environmental Setting of the Proposed Sites.

a. Site A - Clayton Trust Property

The proposed site consists of about 35 acres located in the northwest corner of the Clayton Trust Property (Park Hill) near the intersection of Colorado Boulevard and Smith Road. The Clayton Trust Property is administered by the George W. Clayton Trust Commission, consisting of the Mayor, the President of the Council, and the Manager of Revenue of the City and County of Denver. The proposed site is about four miles northeast of the Denver Central Business District. Presently, the proposed mint site is occupied by a portion of the Park

Hill Golf Course. In order to provide the planned space for the new mint buildings and grounds, nine golf holes would have to be relocated. If this site is selected, the City of Denver would rebuild the nine holes on the ample unimproved acreage in the southeast corner of the Clayton Trust Property. Assuming a site decision by July 1, 1974, the Mayor has stated that it would be possible to have the new nine holes ready by September 1, 1975.¹ The present golf layout could be used throughout the 1975 golfing season, as it is contemplated that mint construction would commence in January 1976. Thus, it is not anticipated that there would be any time lost in availability of an 18-hole golf course at Park Hill for area golfers.

A rail line is near this proposed site, to the north of Smith Road. A spur track, crossing Smith Road at grade, could be brought into the proposed site to provide for rail service to the mint. Smith Road is lightly traveled and is crossed by similar tracks in the vicinity. The availability of the spur would be advantageous, as it is desirable to have rail access for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Road access to the site is available from Colorado Boulevard at 40th Street, and from Smith Road at approximately 1,400 feet to the east of Colorado Boulevard. Connections and adequate intersections exist for north-south traffic on Colorado Boulevard and east-west traffic on Interstate 70. The intersection of these two main arteries is a cloverleaf, about 1,800 feet to the north of the proposed site.

This proposed area is now landscaped as a golf course. In general, the land is a gently sloping area that would be suitable for both construction and drainage.

To the north of the proposed site, across Smith Road and the railroad, is an industrial and warehousing area. The buildings are relatively new and inconspicuous from the proposed mint site. To

1 Letter, Mayor of the City and County of Denver to Frank W. Rhea, February 12, 1974.

A copy of each document referred to in this Statement may be consulted by any interested person at the Office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204. Documents presenting comments on the Draft Environmental Impact Statement are also reproduced in Appendix F of this Statement.

the west is a combination industrial and residential area. This area is rather widely separated from the mint site by Colorado Boulevard. The area to the east and south of the proposed site would continue to be used for the Park Hill Golf Course. This open recreational area would separate the mint site from the light industrial complex to the east of Dahlia Street and the residential area in the vicinity of Dahlia Street and 35th Avenue.

Electric power, gas, water and sewer lines are available nearby. There are no existing utilities to be removed nor relocated to make the site usable. It would, however, be necessary to construct a heating plant for the new mint at this site.

The proposed site is well drained and is not subject to flooding nor a high water table. The area is generally one of low, rolling hills composed of sand with some clay. The bearing characteristics of the soil are generally good; however, fairly extensive spread footing and drilled pier foundations would be required to provide adequate foundations for the buildings envisaged.

Public transportation to this proposed site is now provided by the Denver Metro System. A main bus line runs north and south on Colorado Boulevard. Necessary transfer points are available to other bus lines. Plans for a new rail Personalized Rapid Transit System prepared by the Regional Transportation District include a main station at Colorado Boulevard and Colfax Avenue.² Transportation would be by bus from this point to the proposed site, a distance of about two miles.

The natural climatic environment of the proposed site is generally considered excellent. Precipitation is 10 to 15 inches per year, and the average relative humidity is about 40 percent.

Wildlife species in the area are negligible. There would be sufficient remaining open land in the Golf Course area to provide habitat for any life forms affected.

b. Site B - Denver Federal Center

The proposed site consists of about 35 acres located in the northwest corner of the Denver Federal Center, a Government-owned installation under the control and jurisdiction of the General Services Administration. Within the Federal Center are numerous office and laboratory buildings, housing various Federal Government activities, and a large Federal Supply Warehouse located along Alameda Avenue. The proposed site, which is approximately eight miles west of the Denver

² A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973, Page 34.

Central Business District, is in Lakewood and is adjacent to Union Street to the west and the West Sixth Avenue Freeway to the north. Presently on the site are some obsolete storage and other small buildings, all of which would be removed to provide for the new mint.

A rail spur, which crosses Sixth Avenue at grade, enters the Denver Federal Center from the north and passes within 300 feet of the proposed mint site. This facility would be advantageous, as it is desirable to have rail access to the mint buildings for delivery and shipment of large tonnages of metal, coin blanks, coins and metal scrap.

Highway access to the site is available from Union Street via North Avenue and from within the Federal Center itself, which also has road access from Kipling Street and from West Alameda Avenue. The North Avenue access would be used exclusively for mint traffic (employees, tourists and commercial), as the mint area would be physically separated from the remainder of the Federal Center by security fencing. A new access from Union Street for other Federal Center traffic would be provided at West Second Place, about the mid-point between Sixth Avenue and Alameda Avenue. Connections to the Sixth Avenue Freeway exist at Union Street and at Kipling Street.

There is no appreciable landscaping nor plant growth in the proposed area. The area is generally vacant open land, except for the existing minor storage buildings near the periphery which are to be removed.

To the north of the proposed site, across the Sixth Avenue Freeway, are several recently constructed commercial buildings and a motel. To the west are office buildings, a tennis facility, residential buildings and a commercial office and shopping area under development.

Electric power, gas, water and sewer lines are available within the Federal Center. There are no utilities to be removed nor relocated to make the site usable. Sufficient capacity is available from the existing central heating plant to provide steam for heating the proposed mint structures.

The proposed site is well drained and is not subject to flooding nor a high water table. The substrata in the area are stiff to very stiff clay and a sandy clay. Bedrock should be encountered from eight to 15 feet below the surface, thus building foundation conditions are considered to be very satisfactory.

Public transportation into the Federal Center grounds is now provided by busses of Denver Metro Transit, using West Alameda and Kipling Street. Plans for the new rail Personalized Rapid Transit System prepared by the Regional Transportation District include service to the Federal Center, with a main station planned in the vicinity of

Sixth Avenue and Union Street, near the proposed mint site.³ There are presently about 6,500 employees at the Center. Thus, the mint's approximately 800 employees would be joining with an existing base for public transportation.

The natural climatic environment of the proposed site is considered to be excellent. Precipitation is 10 to 15 inches per year, and the relative humidity averages about 40 percent.

Wildlife in the area is negligible, consisting of common birds, mice and rabbits. There would be sufficient remaining open land to provide habitat for these life forms.

2. Relationship to Land Use Plans, Policies and Controls for the Affected Area.

a. Site A - Clayton Trust Property

It is considered that construction of a new mint on the Clayton Trust Property site would be in harmony with Federal, State, and City land use plans, policies and controls for the affected area. The site in question is designated as park or open space on the land use plan of the Denver Regional Council of Governments.⁴ However, the latest City of Denver land use plan⁵ shows approximately three-fourths of the site as industrial space and one-fourth as park or open space. By Resolution Number 6, passed by the Council on January 28, 1974, and approved by the Mayor on January 29, 1974, the Council of the City and County of Denver urged Mrs. Mary Brooks, Director of the Bureau of the Mint, to select the Park Hill Golf Course site for the location of the new Denver Mint.⁶ The new mint buildings and the surrounding landscaped areas, in conjunction with the adjacent golf course open area, should add to the aesthetics of the locality. The proposed project is compatible with

3 Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974, Appendix F, Page F-53.

4 Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

5 Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971.

6 Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver.

the commercial and industrial activities to the north and east. Road and rail access into the north side of the site could be accomplished so as to avoid any adverse visual impact to the residents in the area. Reconstruction of the golf course in the open area on the east side of the Clayton Trust Property could be accomplished before mint construction commenced (projected for early 1976) so that there would be no interruption in availability of golf course facilities. There is a major park, the Denver City Park, including a municipal golf course, about two miles south of the proposed site. The proposal would not involve displacement of residences nor commercial enterprises. Location of the new mint on this site could serve as a positive factor in providing for stability and improvement of the surrounding neighborhood, and probably would enhance residential property values in the vicinity.

The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property is on the site, nor is there any in the vicinity which would be affected by the project. The State Historical Society of Colorado reviewed the Draft Environmental Statement and concluded that no historic sites nor archaeological resources would be affected at either proposed location for the new mint.^{7&8} The proposed undertaking should contribute to the preservation and enhancement of surrounding areas, buildings, structures and objects of historical, archaeological, architectural or cultural significance.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

b. Site B - Denver Federal Center

Construction of a new mint on the proposed site is considered to be in harmony with known Federal, State and local land use plans, policies and controls for the affected area. The mint buildings proposed for the project would replace the existing small storage buildings on the site. The mint buildings, and the activities to be performed therein, would be compatible with the other Federal structures and activities presently located at the Federal Center and would be consistent with long-range plans for development of this Federal installation. The new mint buildings and surrounding landscaped areas should complement the Federal Center facilities and the adjacent commercial and private developments to the west and to the north.

Location of the mint on this site would avoid the necessity of taking additional land for Federal uses away from the private or local

7 Letter, State Historical Society to Frank W. Rhea, April 3, 1974.

8 Letter, State Historical Society to Frank W. Rhea, April 18, 1974.

government sector. There would be no displacement of families nor commercial enterprises.

The areas to the west of the proposed site and to the north, across Sixth Avenue, are zoned E73-77, Commercial, under the current approved zoning plan of the City of Lakewood. The existing commercial and private developments, and the planned Union Square development to the west, would provide an appropriate and compatible setting for the new mint. The Federal Center property acts as a buffer between the proposed site and areas to the south and to the east.

The mint activity at this location would be consistent with land use plans of the Denver Regional Council of Governments,⁹ which designate the entire Federal Center as a major activity center, and with the recently published "CONCEPT:LAKEWOOD," a draft comprehensive plan for the future development of Lakewood.¹⁰

The most recent listing of the National Register of Historic Places has been reviewed, and it has been determined that no National Register property is on this site, nor is there any in the vicinity which would be affected by the project. The State Historical Society of Colorado reviewed the Draft Environmental Statement and concluded that no historic sites nor archaeological resources would be affected at either proposed location for the new mint.¹¹ The proposed undertaking would not result in the transfer, sale, demolition, or substantial alteration of any potential National Historic Register property at the Federal Center.

It is believed, on balance, that locating the new mint at this proposed site would constitute a proper and beneficial land use.

3. The Probable Impact of the Proposed Action on the Environment.

The construction of a new mint on either of the proposed sites would have some effects on the environment. The environmental impacts divide between those involved with the use and operation of the completed facility and those relatively shorter-range impacts specific to the

⁹ Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973.

¹⁰ CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration. Not adopted as of date of this Statement.

¹¹ Letters, State Historical Society to Frank W. Rhea, April 3, 1974 and April 18, 1974.

construction period. A discussion of the probable effects follows:

3.1 Transportation of Materials, Employees and Visitors Into and Out of the Facility.

These introductory remarks pertain to both proposed sites. A new mint at either location would produce some shift in traffic patterns in the Denver metropolitan area and a small overall increase in traffic in the area. The new mint would have approximately 800 employees, as compared to 461 employees presently working at the Denver Mint. Of the 461 current employees, 10 percent reside within a 2-mile radius of the existing mint, 41 percent within a 5-mile radius, and 82 percent within a 10-mile radius, in a generally circular pattern. After several years of operational status of the new mint, it is expected that this residence pattern would be generally applicable to the proposed new locations. Presently, about 285 private automobiles are used daily by employees in getting to and from work. These automobiles carry approximately 360 persons and travel an average one-way distance of about seven miles, for a total daily vehicle miles traveled of 3,990. Of the remaining 101 employees, nearly all use public transportation, with one or two riding bicycles, and about five persons walking during favorable weather. The number of walkers and bicycle riders probably would increase slightly at the Clayton Trust site, but the effect is considered insignificant.

For either location the traffic loads would consist of employee automobiles, commercial vehicles servicing the mint, and tourists' private automobiles and busses. Based on 1973 patterns of use of transportation modes and systems, the traffic load for the projected 800 mint employees' private automobiles would be approximately 135 cars inbound and 135 cars outbound during each shift change (presently 7 A.M., 3 P.M., and 11 P.M.), 80 cars inbound at about 8 A.M. and 80 cars outbound at about 4:30 P.M. The above-listed total estimate of daily traffic is valid, but the traffic at the hours mentioned are summaries of varied conditions. For operational reasons, there are many subsidiary shifts at the mint which tend to spread the total traffic flow throughout the day. It is expected that the number of employee automobile trips will decrease with improvements in public transportation systems and the continuing State and Federal programs to reduce vehicle miles traveled in the Denver area. If it were desirable, shift changes could be readjusted to avoid peak traffic periods in either site vicinity, or alternatively, to provide for better accommodation with public transportation schedules as they are developed and expanded. The 20 daily commercial vehicle trips in and out of the facility would be scheduled to the maximum extent feasible to avoid rush-hour traffic. The tourist traffic, averaging an estimated 140 cars and 5 busses daily, would occur in the middle portion of the day and thus would naturally avoid peak periods. Mint traffic would terminate in its own parking areas and would not add to parking congestion in the site vicinity. There would be separate parking areas for visitors and for

mint employees. At the present mint there are no parking facilities for public visitors.

b. Site A - Clayton Trust Property

While the overall road network in the vicinity of this site is excellent, congested conditions and traffic delays occur presently on Colorado Boulevard and on I-70 during peak periods. In 1971 (the latest year figures are available from the Colorado State Highway Department) average daily traffic on Colorado Boulevard adjacent to the site was 29,800 vehicles and on I-70 at the Colorado Boulevard intersection was 58,700 vehicles.¹² Mint employee traffic would add 970 one-way trips at the immediate site location, if 1973 transportation patterns are continued. It is estimated that tourist traffic and commercial service traffic would add an average of 330 one-way trips daily. As indicated previously, all of this mint traffic would be planned and scheduled to avoid peak periods to the greatest degree practicable.

This site is presently served by existing public transportation, which service is to be expanded and improved. The following significant comments are quoted from a letter from the Regional Transportation District regarding transit implications for the proposed mint sites.¹³

"The short-term public transportation plan, the Early Action Program, involves improvements to bus service for the District. The Park Hill site is currently served by existing bus service. Route 15, which serves the Park Hill site directly, is a scheduled North-South service on Colorado Boulevard interconnecting with scheduled East-West routes - 64, 28, 40, 14, 13 and 6 within a distance of about three miles. These routes service Denver's Central Business District and points east and northwest. Additionally, regional service between Boulder and the C. U. Medical Center may include a stop for the Park Hill site on its existing route. Under the Early Action Program, bus frequencies on each of the local routes will be increased. Bus frequencies for Route 15 will be improved to one bus every fifteen minutes. With increased frequencies on the interconnecting bus routes, as well, the Park Hill site will be readily

12 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

13 Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974, Appendix F, Pages F-51-53.

accessible by transit for employees and tourists.

"The timing for the short-term transportation plan calls for the implementation of improved bus service in 1975. Because of the flexibility of bus routes and bus operations, bus service may be changed under the Early Action Program to accommodate the transit needs of either Mint location. Future improvements beyond the Early Action Program to bus operations will be accomplished in accordance with the Transit Development Plan, a five-year management and improvement plan.

"The long-term public transportation plan involves the implementation of a personalized system of rapid transit on fixed guideways with a variety of levels and types of bus service to support the rapid transit system. This Personalized Rapid Transit (PRT) system includes approximately 58 stations and 100 miles of guideway throughout the Regional Transportation District.

"With regard to PRT service, the Park Hill site will not be directly served. The closest PRT station location to the Park Hill site will be in the vicinity of East Colfax and Colorado Boulevard, a distance of approximately 2.5 miles. The transit link between the Park Hill site and the station will be accomplished by local bus service circulating within this area. The level of bus service and frequencies in this general Northeast Denver area has not yet been determined but a high frequency of service may be anticipated for North Colorado Boulevard because of the need to serve the adjacent residential neighborhoods and type of activities located on this arterial: Phipps Auditorium, Museum of Natural History, City Park, school, City Park Golf Course, Park Hill Golf Course, and the industrial uses and employment locations in the I-70/Colorado Boulevard general area. The Park Hill site will be accessible from all parts of the region by rapid transit via a transfer to local busses circulating in the neighborhood.

"There are no negative environmental comments relating to transit regarding either site for the proposed mint location."

The mint-generated traffic would effect a net addition in vehicle miles traveled (VMT) in the Denver area. The total VMT would be centered generally in a circular pattern around the mint, with the maximum traffic concentration occurring in the immediate site area.

On the basis of existing housing availability and the relatively central metropolitan area location of the Clayton Trust site, it is expected that after several years of mint operations (by about 1985), mint employee residences would be centered around the new mint in the same general patterns and distances as for the present mint. For comparison purposes, net additional VMT calculated below are based on 1973 transportation modes usage. Due to improved public transportation systems as detailed above by the Regional Transportation District, plus the State of Colorado Transportation Control Plan to reduce major automobile-caused pollutants, it is considered that the VMT figure below is a maximum. Further, for this proposed site, it is expected that there will not be any net additional VMT due to tourist and commercial service traffic because of the relatively central metropolitan area location. Per all of the above, the net daily additional VMT is estimated as follows:

970 one-way trips x 7 miles ¹⁴	=	6,790
Minus VMT for present Denver Mint	=	3,990
Net additional VMT		2,800

In addition to road traffic, there would be some impact with respect to delivery and shipment of materials by rail. At this site it is proposed to connect to the Union Pacific rail lines to the north by means of a spur track crossing Smith Road at grade, approximately 1,200 feet east of Colorado Boulevard. Most of the cargo would be inbound coinage metal in either raw or coiled strip form and outbound coins or metal scrap. Planned production capacities for 1980 would require about 16 rail cars per week for these shipments. It might be necessary to provide heat and air conditioning using coal as the fuel source, depending upon the availability of natural gas or fuel oil in 1980 and the years beyond. Another four rail cars per week would be needed to deliver the required amounts of coal. These figures would be about tripled when the new mint was developed to its ultimate programmed capacity of 28 billion coins per year. The switching rail

14 Results of the 1971 Joint Regional Planning Program origin and destination study suggest the average work trip length for the Denver region was about seven miles. Letter, Denver Regional Council of Governments to Frank W. Rhea, April 24, 1974, Appendix F, Page F-48.

service would be at an average frequency of three times per week and would be performed during those daylight hours when traffic on Smith Road is at a minimum. Switch trains would take three to four minutes to cross the street. This rail delivery is not considered to be a major problem due to the infrequent service, the similar grade rail crossings of Smith Road in the vicinity, and the relatively light and slow-moving nature of the traffic on Smith Road.

c. Site B - Denver Federal Center

The overall road network in this area is excellent, with access available into the Federal Center from Alameda Avenue, Kipling Street and Union Street. Congested conditions and traffic delays occur at present during peak periods on the road network around the Federal Center, particularly at the Union/Simms - Sixth Avenue interchange. Union Street is being reconstructed currently to provide expansion from two to six lanes, plus left turn lanes, from Alameda Avenue to Sixth Avenue. Preliminary engineering is underway relative to widening Simms Street to six lanes from Sixth Avenue to Colfax Avenue. Other minor improvements, including installation of traffic signal lights, are being accomplished now to improve traffic flow through the Union/Simms - Sixth Avenue interchange. During the rush-hour, congestion and traffic delays occur almost daily on Sixth Avenue from Wadsworth Boulevard east. Average daily traffic on the arteries around the Federal Center, per Colorado State Highway Department 1971 counts, was: ¹⁵

Sixth Avenue west of Kipling	32,200
Kipling south of Sixth Avenue	21,000
Union south of Sixth Avenue	15,700
Alameda west of Kipling	12,000

Mint employee traffic would add 970 one-way trips in the immediate site vicinity, again based on 1973 transportation patterns. It is expected that tourist traffic to this proposed site would be somewhat less than that for the existing mint, or the Clayton Trust Property site, due to the distance from other tourist attractions and the Denver Central Business District. Tourist traffic is estimated at 100 private vehicles, plus 5 busses daily. This, plus commercial service traffic, would add an average of about 250 one-way daily trips. Also, it is estimated that the tourist traffic would travel a net additional eight miles, the distance from the center of Denver to the proposed site. All mint traffic would be planned and scheduled in coordination with other Federal Center traffic and to avoid peak

15 Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974.

periods to the greatest degree practicable.

The Federal Center has existing public transportation service which is planned for expansion and improvement. The following is quoted from the Regional Transportation District comments regarding transit implications for the proposed mint sites. ¹⁶

"The Federal Center Mint site at 6th and Union is not currently served directly on a regularly scheduled basis by existing transit operations. Routes 16 and 59 serve the Federal Center directly but only for commuter service in the morning and evening. Route 16 is a North-South service on Kipling Street. Route 59 connects the Federal Center with Denver's Central Business District. Route 75 operates regularly between the West Lakewood area and Denver's Central Business District, but the west end of the line is Alameda and Garrison, approximately 1.5 miles southeast measured on a straight line from the Federal Center site.

"Under the Early Action Program, Route 16 will be converted into a regularly scheduled North-South service on Kipling with thirty minute bus frequencies. As a scheduled service, Route 16 will interconnect with another East-West service, Route 84, which will operate between Golden and Denver's Central Business District also on a thirty minute frequency. Route 59 will be improved by the addition of two more bus trips in the morning and evening but it will remain a commuter service. Route 75 will be extended to the west under the Early Action Program to Alameda and Ohio resulting in a Federal Center bus stop at Alameda and Union Street. As a result of the Early Action Program, the transit accessibility of the Federal Center Mint site for employees and tourists will be improved. Route extensions and modification of bus service to serve the Federal Center site are possible under the Early Action Bus Program.

"The Federal Center site will be served directly by the PRT. A station location is planned for the Federal Center in the vicinity of 6th Avenue and

16 Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974, Appendix F, Pages F-51-53.

Union Street. Thus the Federal Center site will be directly accessible from all parts of the District via rapid transit.

. . .

"There are no negative environmental comments relating to transit regarding either site for the proposed mint location."

On the same general bases as listed for the Clayton Trust Property site, the mint-generated traffic would effect a net addition in VMT in the Denver area. Due to housing availability locations, for this site an average work length trip of about nine miles is probably more appropriate, rather than the 7-mile figure from the 1971 Joint Regional Planning Program study. The VMT figure below is considered to be a maximum, due to improved public transportation systems and automobile-caused pollutants reduction programs underway and planned. Net additional VMT is estimated as follows:

970 employee one-way trips x 9 miles	=	8,730
250 tourists and commercial one-way trips x 8 miles	=	2,000
		10,730
Minus VMT for present Denver Mint		3,990
Net additional VMT		6,740

For this site also, there would be some impact with respect to rail service. The existing rail spur enters the Federal Center from the north and crosses the Sixth Avenue Freeway at grade. This spur is in active use for shipments to and from the Federal Center involving about 30 rail cars per week. Present switching service is being accomplished at a frequency of three times per week at some time between the hours of 11 A.M. and 3 P.M. Switch trains take about four minutes to cross Sixth Avenue. The additional rail cars for the mint (16 cars* per week in 1980 and about 48 cars per week ultimately) would be added to the existing switch trains, with no increase in frequency required. This rail service to the Federal Center creates somewhat of a safety problem due to the grade crossing and the intensity and relatively high-speed nature of the automotive traffic on Sixth Avenue, but the requirements of the new mint would not add appreciably to the problem. The existing rail service is necessary for efficient accomplishment of Federal Supply Activities performed from the Federal Center, and there are no plans for discontinuance of this rail traffic.

3.2 Potential Pollution - Air, Water, Solid Wastes and Noise.

a. General

Due to the nature of the industrial operations planned to be performed in the new mint, there are several potential pollution problems associated with the construction and operation of the facility. These potential problems are similar for both of the proposed locations. All of these potential problems will be analyzed in great detail during the design of the new mint by the architect-engineer. None of these problems are excessive to the point of requiring new state-of-the-art equipment and systems, but each must receive special attention. It is the intent of the Treasury Department that the new mint would be designed and constructed to comply with the letter and spirit of all local, State and Federal laws and regulations pertaining to the prevention of air, water, and noise pollution and solid wastes disposal. In this regard, it is intended that the new mint would be provided with the most modern and efficient pollution measurement and prevention systems and equipment available so that the plant would serve as a model in the field of pollution prevention and control. Upon completion of the preparation of the plans and specifications for the proposed facility, they will be submitted to the Environmental Protection Agency for review, so that that agency can assure that the specifically designed pollution control systems and equipment will comply with the provisions of Executive Order 11752, dated December 17, 1973.

b. Air Pollution - Stationary Source and Motor-Vehicle Generated.

The new mint would generate some fumes from its metal melting and casting operations, from strip rolling and finishing and from blank annealing and cleaning. It is planned to install fume collection systems, employing hoods and ductwork, and to cleanse all fumes from the industrial operations using electronic precipitators, cyclone centrifuges, filters and scrubbers. Specific equipment, which will be designed for near zero air pollution emissions, will insure that extruded air meets or exceeds all local, State and Federal standards for air quality. Similar, but older, models of the types of equipment involved are installed in the Philadelphia Mint and the present Denver Mint and are functioning adequately in meeting air quality standards. With this installed equipment, it is considered that air pollution effects from the industrial operations would be negligible.

The same negligible effects generally would be true for any potential stationary source air pollution from the facility heating plant. At the Denver Federal Center there is sufficient capacity available in the existing central steam heating plant to serve the proposed mint. The primary source of fuel for the heating plant, which has three boilers, is natural gas, with No. 2 fuel oil being used as

the main standby fuel. Two boilers have been converted so that they are capable of burning coal, but the third boiler cannot be converted to coal use. With two boilers in operation, there would be sufficient capacity for existing Federal Center loads, plus the new mint load, leaving one boiler in reserve. While burning natural gas or fuel oil, the heating plant has been tested by the Air Pollution Control Division of the Colorado Department of Health and found to be in compliance with Federal and State emission standards and clean air standards.¹⁷ While burning coal the plant was not in full compliance with Federal and State standards. The General Services Administration has this problem under engineering study and design and has stated that necessary corrective measures will be installed so that the plant meets all required emission and air standards far in advance of the new mint planned operational date of 1980.¹⁸ At the Clayton Trust Property site, it would be necessary to construct a heating plant for the new mint, which would be fired with clean fuels if they are available. If it were necessary to use coal as the fuel, on either a prime or standby basis, precipitators and other necessary control measures would be installed so that the plant would be in compliance with all Federal and State standards relative to emissions and clean air. Thus, at both sites the heating of the new mint would comply with clean air standards and the net quantity and quality of any emissions would be the same for the two proposed sites.

With respect to the impact of any stationary source pollutants as discussed in the preceding two paragraphs, the following comment from the Colorado Department of Health is considered to be significant.¹⁹

"The air quality data supplied in the Impact Statement presented, for 1970, an annual geometric mean for suspended particulate matter of 60.3 ug/m³ (micrograms per cubic meter) for the Lakewood site (see Attachment A). The station is approximately one mile east of the Denver Federal Center proposed mint site. However, the sentence on page 14 of the Statement, "The School Administration Building is representative of air quality conditions at the proposed Park Hill site" is not correct. A much closer station is the Hull

17 Letter, General Services Administration to Frank W. Rhea, April 24, 1974, Appendix F, Pages F-33,34.

18 Ibid., Appendix F, Page 34.

19 Letter, Colorado Department of Health to Frank W. Rhea, April 18, 1974, Appendix F, Pages F-37, 41.

Photo site at 5105 East 38th Avenue. This station is approximately one mile from the proposed Park Hill Mint site. The annual geometric mean, for 1970, of suspended particulate matter from the Hull Photo station was 79.6 ug/m^3 . If the 1972 recorded and 1973 projected levels of suspended particulate matter are considered (see Attachment B), there is not much difference between the two sites; therefore we feel both sites are about comparable considering only this one pollutant.

"ATTACHMENT B

SUMMARY OF SUSPENDED
PARTICULATE DATA

	Annual	Geometric	Mean	(ug/m^3)
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Lakewood	60.3	71.0	71.0	72.0*
Hull Photo	79.6	84.0	74.0	78.0*

* projected "

In accordance with the above discussions and statements from the Colorado Department of Health, it is considered that the stationary source air pollution problems would be minimal and would be substantially equal for both proposed sites.

In addition to the stationary source pollutants, motor vehicle pollutants would be generated in the Denver metropolitan area by the net additional vehicle miles traveled of 2,800 for the Clayton Trust Property site and 6,740 for the Federal Center site. In each case, the additional VMT would be concentrated in the immediate mint vicinity and would radiate in a generally circular pattern to a distance in excess of 10 miles.

The following is an extract from a notice of final rule making, dated October 25, 1973, by the Administrator of the Environmental Protection Agency, relative to the Colorado Transportation Control Plan, published in the Federal Register, Volume 38, No. 214 - Wednesday, November 7, 1973, beginning on page 30818.

"Title 40 - Protection of Environment
CHAPTER 1 - ENVIRONMENTAL PROTECTION AGENCY
Subchapter C - Air Programs
Part 52 - Approval and Promulgation of Implementation Plans
Colorado Transportation Control Plan

"SUMMARY OF THE TRANSPORTATION CONTROL PLAN (p. 30819)

Table I summarizes the Colorado and EPA control strategy effects in tons per year of carbon monoxide and hydrocarbons in the demonstration areas listed in the Colorado plan. The demonstration areas are the CBD for carbon monoxide emissions and Denver and Adams Counties for emissions of hydrocarbons.

Table I - Compilation of control strategy effects on carbon monoxide and hydrocarbon emissions. (Tons per year)

[NOTE: This table, showing effects of the proposed State and EPA strategies in tons per year of carbon monoxide and hydrocarbons, has been omitted from this statement because Table II, extracted in full herein, shows the same effects in percentage reductions from 1971 emissions.]

Table II - Effect of Colorado and EPA Strategies by 1977

Strategies	Percent reductions from 1971 emissions	
	CO	HC
State strategies:		
1. Federal motor vehicle control program.....	31	23.0
2. Inspection/maintenance.....	7	2.5
3. Air bleed.....	4	1.0
4. High altitude modifications.....	10	2.5
5. VMT reductions.....	6	5.0
a. Bus/carpool lanes.		
b. Parking lot construction limitations.		
c. Limitation of on-street parking in the core area.		
d. Mass transit improvements.		
EPA regulations:		
6. Stationary hydrocarbon control.....		24.0
7. Gasoline limitation.....	6	5.0
Total reduction.....	64	63.0
Reduction required.....	64	60.0

As shown in Tables I and II, the EPA and State regulations ensure attainment of the national ambient air quality standards for carbon monoxide and photochemical oxidants (hydrocarbons) by May 31, 1977."

Table II above shows that reductions in VMT from 1971 levels will be required in the demonstration areas in the amount of 12 percent for carbon monoxide emissions and 10 percent for hydrocarbon emissions.

There are very little data available regarding motor vehicle-caused air pollutants in the Denver metropolitan region. What data exist indicate that the 8-hour concentrations of carbon monoxide during April, May and June of 1973 were almost the same for the two sites.²⁰ Also, August 1973 measurements of ozone (hydrocarbons) indicated that the two sites were about the same, with both exceeding the national standard of .08 parts per million on numerous occasions.²¹ With respect to this matter of automobile-caused pollutants, the following is quoted from the Colorado Department of Health comments on the Draft Revised Environmental Statement for this proposed project:²²

"However, the major automobile-caused pollutants (i.e., carbon monoxide and photochemical oxidants) presently exceed Federal ambient air quality standards on numerous occasions over large portions of the Denver area. With limited air quality data for these pollutants at the two proposed mint sites, pollutant problems can be reduced by locating the mint where vehicle traffic can be minimized.

"The Impact Statement devotes several pages to the volume and impact of the induced vehicle miles traveled (VMT) of either site. Based on projections of 1973 vehicle usage at the existing Denver Mint, the Park Hill site should generate 1800 VMT less daily net average than the Denver Federal Center site. On the other hand, the average daily traffic (ADT) counts of the roadways adjacent to both sites indicate 7600 less vehicles at the Denver Federal site.

"The Department has great concern for the Park Hill area, because it falls within the boundary established by both the Department of Health and the Environmental Protection Agency to demonstrate the adequacy of transportation control strategies to attain and maintain the National Ambient Air Quality Standard for hydrocarbons by mid-1977. To

20 Colorado State Health Department Document on Denver Air Quality Control Region Air Quality Measurements, December 18, 1973.

21 Ibid.

22 Letter, Colorado Department of Health to Frank W. Rhea, April 18, 1974, Appendix F, Pages F-37, 38.

reach that standard at the Park Hill site, there must be a reduction in vehicle miles traveled (VMT) in the described area (see Attachment C.) No new source of generated VMT could be tolerated within the area without a corresponding reduction of VMT from another source, or unless motor vehicle emission control technology is improved beyond that presently considered possible."

The Environmental Protection Agency has expressed somewhat different views regarding air quality impacts for the proposed two sites. The following is quoted from comments of the agency on the Draft Statement: ²³

"An exhaustive analysis of the ultimate air quality impacts occurring from either site would involve complex modeling and estimates of decisions about housing relocation and transportation use that may or may not occur. EPA feels that at this point, the relative merits of one site versus another from an air quality standpoint are unclear. There are further complications involved in determining where the VMT reductions should occur that make it difficult to single out one or another site.

"If carbon monoxide is the air pollution parameter of concern, then reducing VMT in the downtown area, even with some increase in the outlying urban areas, could result in a decrease in the maximum observed concentrations. This would be a beneficial transportation technique for meeting air quality standards.

"However, recent evidence indicates that control of oxidants may be more critical for the Denver area. Recent sampling data suggests that oxidants may be dispersed relatively uniformly over the Denver metropolitan area. If this is the case, a control of overall VMT related emissions becomes more important than spatial distribution of these emissions."

"The statement on page 15 that certain reductions of emissions are required in the "demonstration areas" is not strictly correct; the reductions are required throughout the Denver Air Quality

23 Letter, Environmental Protection Agency to Frank W. Rhea, May 6, 1974, Appendix F, Pages F-10-12.

Control Region (AQCR).

"The demonstration area was only utilized as a tool to determine amounts of reduction in emissions necessary throughout the AQCR. As such it has no legal standing. Both Mint sites are inside the AQCR and are subject to exactly the same air quality standards."

There is one major source of VMT that is being removed from the vicinity of the Clayton Trust Property site, i.e., the Air Force Accounting and Finance Center, which is planned for relocation to a site on Lowry Air Force Base. This Accounting and Finance Center has approximately 3,200 employees and in December 1973 generated 5,152 private automobile daily one-way trips to and from the present location at 3800 York Street, Denver. The VMT involved is obviously much greater than that which would be involved with the new Denver Mint.

In any event, the net additional VMT caused by the new mint (2,800 for Clayton Trust and 6,740 for the Federal Center) would be very minor in comparison to the projected 14,700,000 vehicle miles of travel on an average day in 1977 in a 625-square mile study area of the Denver region.²⁴ It is considered that the net additional VMT caused by the new mint would not have a significant effect at either site, although it would be somewhat greater for the Federal Center than for the Clayton Trust Property. The solution of air quality problems in the Denver Air Quality Control Region is dependent upon changes in uses of transportation modes and improved automotive emission control technology, not upon the mint location.

c. Other Potential Pollution Problems

Chemical effluent will be produced from the blank cleaning operations and from the assay laboratory. Oil will be collected from the rolling mills and from the blanking and coining presses. All process water and other liquids will be collected in the plant, passed through settling tanks, oil separators, filters and chemical neutralizing basins and then reused within the plant in closed systems. Discharges from the mint into sanitary sewers will comply with the Water Quality Standards of the Colorado Department of Health. Expected discharge to sanitary sewers would be 300 gallons per minute average, with peak short-term rates as high as 600 gallons per minute. Adequate sewer

24 Transportation Control Strategy Development For The Denver Metropolitan Area, December 1972, prepared by TRW Transportation and Environmental Operations for the Environmental Protection Agency.

capacity is available near both sites to handle this additional discharge. These discharges will be treated within the mint, as discussed above, so that there are no pollutant concentrations which might be harmful to the biological treatment processes in the publicly-operated sewage treatment plants. Treatment facilities and sanitary sewerage systems will be protected and monitored to preclude the possibility of accidental discharge of contaminants.

Attention must be given to the handling of process cooling water used in the metal casting and strip rolling operations. Process cooling water will be recirculated within the plant in closed systems. This water will be processed through closed loop cooling towers and then reused, so that no cooling water will be discharged from the plant. Particular attention will be applied to the design of any cooling towers to reduce fog-producing conditions to almost zero. Cooling towers will be designed and located so that any such fog would dissipate within the site boundaries and there would be no adverse impact with respect to automotive traffic safety.

Solid wastes will be generated from numerous sources within the operations, with also the necessity during the construction period to remove minor quantities of (1) materials from demolished minor existing structures (in the case of the Federal Center), (2) plant growth, and (3) perhaps some unsuitable soils. Solid wastes produced during operations will be processed within the plant, with coinage scrap metal being reused. Most other solid wastes (paper products, lumber, non-coinage scrap metal) will be collected and sold to private firms for salvaging and recycling. Nonrecyclable solid wastes would amount to about 500 cubic yards per month. This would be placed in bins and removed by trash and waste disposal contractors to approved disposal areas.

Control of potential pollution during the construction operations would be accomplished by inclusion of an environmental section in the construction contract specifications requiring the contractor to comply with local, State and Federal regulations pertaining to disposal of solid wastes, erosion and dust control. Emphasis would be applied to controlling dust and water erosion.

There would be some noise pollution during the construction period. Noise from operation of construction equipment and pile driving, and other construction operations, is not expected to be a significant problem, due to the muffling effect of the relatively high automotive traffic in the vicinity of the proposed sites, and the relative isolation of the sites.

The processes of making coins inevitably produce noise, but none would be apparent outside the site boundaries, as the buildings would be designed with internal noise level controls to meet the

requirements of the Federal Occupational Safety and Health Act. Wall design would preclude any external noise problems. There would be some minor noise due to truck traffic and railroad switching engines servicing the rear of the facility. In any event, the facility would be designed and operated to be in full compliance with all local, State and Federal laws and ordinances pertaining to noise level controls.

3.3 Energy Use and Conservation.

Energy would be required in the new mint to operate the coinage production machinery and equipment and to light, heat and ventilate the buildings. Other than heating of the buildings, nearly all of the energy would be in the form of electric power, which the Public Service Company of Colorado has indicated would be available in required amounts at either location.²⁵ The additional energy requirements of the new mint are considered to be unavoidable, as coins are required for the orderly and efficient conduct of the economic activities of the American people. It would be desirable to heat the buildings with a clean fuel such as natural gas, but if gas is not available in required quantities in 1980, heating could be accomplished with other fuels and air pollution prevention devices installed so that air quality standards would be met, as discussed previously. The new mint would be designed and constructed to conserve energy by such measures as provision of adequate insulation, reduction of windows and installation of storm windows, and use of heat generated by industrial operations and machinery for space heating.

3.4 Secondary, or Indirect, Environmental Consequences.

Secondary effects of the proposed action are expected to be relatively minor at either location due to the nature of the project and the small employee force in comparison to the total population and work force in the Denver metropolitan area. These effects would occur gradually and would be influenced considerably by changes in patterns of overall metropolitan area development, State and local controls on land uses, availability of gasoline for private automobiles and improvements and extensions of public transportation systems.

At both locations land for the proposed project is available, and water, sewerage, roads, electric power and other public services are already in existence as needed for the project.

It is believed that the main secondary consequences of this proposal would be with respect to housing, schools, economic impact, social impact and tourist considerations. Regarding most of these factors, the employment characteristics of the mint are considered to be pertinent. A classification and wage scale of mint employees, as of December 31, 1973, is attached as Appendix E. There are no mint

25 Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974.

employees currently in the low-income bracket (less than \$6,826 per year for a family of 4), and there are 57 employees in the moderate-income bracket (less than \$8,883 per year for a family of 4). The overall mint average salary is \$10,839 per annum.

With the mint at the Clayton Trust Property site, the secondary consequences would be minor. As discussed in paragraph 3.1 above, it is expected that employee residences would gradually change with time from the circular pattern around the present Denver Mint, but the movement of the residence center would be in the order of two miles to the northeast. The facility would not be quite as accessible to tourists as is the existing downtown location, and there probably would be some reduction in the number of public visitors from the recent average of 245,000 per year. Most of these tourists visit other points of interest in the downtown Denver area in conjunction with their trip to the mint, or visit the mint during their stay in Denver to attend some major event such as a convention or the National Western Stock Show. It is not anticipated that there would be any increase in tourist VMT because of the relatively central metropolitan location of this site. The Clayton Trust site is close to other major tourist attractions in the area such as the Museum of Natural History, the City Park Zoo, the Coliseum and Stock Show Buildings, and the Denver Art Museum, and it is in the transportation corridor between the Denver Central Business District and Stapleton International Airport. The area encompassed by all of these tourist attractions will be readily accessible by frequent bus service by 1980, as discussed in detail in paragraph 3.1b of this statement. There probably would be a minor change in money spent by tourists for lodging, meals and automobile service from the Central Business District to areas closer to the new mint.

It is considered that there would not be any measurable impact regarding housing, schools, economic or social factors for this location because, due to the closeness to the present mint location and housing availability, the proportions of mint employees residing in the City of Denver and surrounding suburban areas is expected to remain approximately the same as now exists. Housing in Denver is commensurate with the income of mint employees and ample school capacity exists.

For the Federal Center location there would be somewhat more of an impact regarding these secondary factors. In this case, the employee residence center is anticipated to move about four miles westward from the present mint. This would occur as the work force is increased to the 800 figure and due to employee turnover, primarily through retirements. By this process, mint employees residing in Lakewood would be expected to increase from the present figure of 39 to about 100. Vacant housing, particularly in the low- and moderate-income ranges, is in short supply in Lakewood today. The overall mint average salary of \$10,839 is somewhat lower than that of Lakewood residents. Some mint employees might have difficulty in obtaining housing in

immediate proximity to the site, but this would not pose a serious problem as housing of all classes is available in the City of Denver and in Jefferson, Adams, and Arapahoe Counties, all of which areas would be available to mint employees. In addition, the comprehensive plan "CONCEPT:LAKEWOOD", cited earlier, contains recommendations that the City of Lakewood should establish a policy of requiring low- and moderate-income housing in future developments and a goal that annual housing production should include 10 percent low- and moderate-income units. It is expected that current mint employees would relocate slowly over a considerable time period, if at all, and that most of the new employees would come from the existing Denver metropolitan area work force base, so that there would not be a sudden influx of new residents into areas in close proximity to the mint site. The following is quoted from the Department of Housing and Urban Development regarding housing availability for the two proposed sites. ²⁶

"In summary, the cost of housing in Lakewood is significantly higher than in Park Hill. Although the absolute prices and salaries will be somewhat different by the time the Mint is completed, we can expect that the relative differences will be comparable to the current situation. In general, the production levels and housing availability are greater in Lakewood. However, most of the housing is beyond the means of most Mint employees. Conversely, the availability of housing in Park Hill is more limited, but the cost of this housing is much more modest. At present, the Park Hill site would provide a much greater opportunity for moderate-income employees to move close to work.

"However, there remains somewhat of a paradox. One site (Park Hill) is near modest-cost housing, but little of it is available or being produced; the other site (Federal Center) is near areas of substantial housing production, but little of this is for moderate-income families. Therefore, we anticipate that the selection of either site will require the formulation of some sort of plan to assure the availability of moderate-price housing. We recommend that you contact us when construction of the Mint is underway. At that time, we will update our figures on the housing market and advise you as to what Federal and local resources might be utilized in the area to

26 Letter, Department of Housing and Urban Development to Frank W. Rhea, May 3, 1974, Appendix F, Page F-26

provide housing for moderate-income families."

With respect to schools, the additional mint residents of Jefferson County would add to the Jefferson County School District population of 76,000 students in the 1973-74 school year. (The Jefferson County School District operates all schools in Jefferson County, including those in Lakewood.) For the total mint employee force of 800, by 1985 (when employee turnover and relocations by retirements and other factors would have been completed) it is estimated that 470 mint employees would live in Jefferson County, as contrasted to the 73 employees currently residing in the county. These approximately 400 additional employees would add about 320 pupils to the school population.²⁷ Schools in Jefferson County generally are operating to capacity,²⁸ so that additional capacity would have to be provided to accommodate the additional 320 students. There would be other minor changes in school populations throughout the metropolitan area which would be difficult to detect because of the large population growth in the area.

Some economic impact would be felt by the shift of the mint's payroll to a center about four miles westward of its present location. The mint payroll for Fiscal Year 1975 is budgeted at \$6.5 million, based on 532 employees. Using current dollars and the employee increase to 800 results in a year 1980 payroll of about \$9.75 million. Assuming that an average of approximately 20 percent of each employee's salary would be deducted for retirement, insurance and Federal and State income taxes, \$7.8 million would be left in spendable income (\$9,750 per employee). Of the present 461 employees, 214 (46.4 percent) reside in the City and County of Denver. With the mint at the Clayton Trust site and 800 employees, it could be expected that as many as 370 employees would reside in Denver. With the mint at the Federal Center, only 123 of the 800 employees are forecasted to live in the city. Thus, Denver might lose as much as \$2.4 million in employee take-home pay. Also, a minor amount of tourists' expenditures for lunches and car service would be shifted away from downtown Denver. The Department of Housing and Urban Development has made the following comments on this matter:²⁹

"If the facility were to be relocated out of Denver, the loss to the city and county of the current \$5 million annual payroll and an increased future payroll

27 What New Jobs Mean to a Community, Chamber of Commerce of the United States, 1973, Page 10.

28 Letter, Jefferson County School District Department of Planning and New Construction to Frank W. Rhea, May 16, 1974.

29 Letter, Department of Housing and Urban Development to Frank W. Rhea, May 3, 1974, Appendix F, Page F-21.

would be significant, as would be the loss of tax base from those employees who would follow their employment out of the city.

"The loss of sales tax revenues and the Occupational Privilege Tax would further weaken the financial position of the city and county of Denver. The city and county of Denver is bearing the financial burden of providing facilities such as the zoo, parks, museums, etc. that are used by the citizens of the entire Metro area. That fact was recognized by the State Legislature in their appropriation of approximately \$11 million to the city and county of Denver. Any Federal action which may be taken to alleviate the inequities in the burdens of financing and maintaining these areawide facilities should receive serious consideration."

Regarding the social impacts of a relocation to the Federal Center site, the Department of Housing and Urban Development has commented as follows: ³⁰

"As you know, the Department of Housing and Urban Development is primarily concerned with (1) the effects of proposed action on the urban environment and (2) the compatibility of the action with the comprehensive planning for the area. Assessing these considerations, this office believes that several impacts, resulting from relocation of the Denver Mint out of Denver, would run counter to the continued efforts of Federal agencies to stimulate and renew the core city which serves as the sustaining element for the entire Denver Standard Metropolitan Statistical Area (SMSA).

"The relocation of the Denver Mint to the proposed Denver site would permit the present employees to conveniently remain at their current residences with little disruption of their personal activities. The 41 percent of the present employees who are minority have existing ethnic ties within the city which could be maintained. In addition, the core area offers health and social services far superior to those provided in Lakewood, particularly for present and future low and moderate income employees. Included

30 Letter, Department of Housing and Urban Development to Frank W. Rhea, May 3, 1974, Appendix F, Pages F-17,20-22.

among these services are the private and charity health services of the Denver General Hospital, the most modern and complete facility in the Rocky Mountain area. Also, established offices of city, county and state social service agencies are conveniently located within the core area, as well as such other licensing and regulatory agencies as the State Revenue Department Drivers License Office. The city plans to open branch offices of city and social services in the Five-Points Neighborhood Facility complex.

"We also would like to point out that superior cultural facilities are located in the core area, such as the Botanic Gardens, museums, Denver Zoo, and performing arts facilities. It is also important that the major educational facilities are located in the core area; University of Colorado, Denver Center, Metro State College, Community College, Denver University and Emily Griffith Opportunity School. Metro State, soon to be a part of the Auraria educational complex, has since its inception been geared toward providing education for the underemployed and persons who are unable to attend college full time. Several of the institutions offer night classes and courses to upgrade skills for nondegree as well as degree oriented students. We believe that the convenient location of all of these facilities is important not only to the employees but also to their dependents.

"From the socioeconomic standpoint, a potentially beneficial impact is that of the opportunity for minority entrepreneurship which would be available for service businesses related to Mint employees as well as tourists, in particular, economic opportunities for restaurants, gas stations, etc.

"Relocation of the Denver Mint to either of the proposed sites would be consistent with planning for the subject areas. However, it is the position of this Department that from the standpoint of long term, areawide comprehensive planning and community development goals, the serious impacts which we have elaborated above clearly indicate that the proposed Denver site would be far superior to that of the alternate proposal."

Brief comments to the same general effect were received from the Office of Economic Opportunity. The Mayor of the City and County of Denver presented extensive comments, which stressed the socio-economic aspects of the location of the new mint in relation to the Park Hill area itself and the City as a whole. Likewise, Congresswoman Patricia Schroeder sent comments setting forth these aspects in depth. Greater Park Hill Community, Inc., a civic association, submitted extensive and carefully prepared comments, in which the socio-economic factors were given great weight. Another citizens' group, the League of Women Voters, wrote more briefly to the same effect, as did the Denver Chamber of Commerce, which strongly advocated the use of the Clayton Trust property.

With respect to the proposed location of the new mint at the Federal Center, the Lakewood Chamber of Commerce has commented as follows: ³¹

"Our organization feels that the environmental impact statement states quite clearly that location of the U. S. Mint in Lakewood would cause no significant ill-effect on the environment of our community.

"However, causing "no significant ill-effect on the environment of our community" is not reason enough alone to support the selection of Lakewood as the site for the Mint. We believe the relocation of the U. S. Mint to Lakewood would be a great asset to our city. We think the benefits of having the Mint here should be considered by the citizens of Lakewood and governing body of the city.

"Since the incorporation of Lakewood in 1969, many of us have struggled to develop a sense of community identity and community pride. Community pride would combat the apathy we have experienced in local elections and on local issues, and we believe it would help make our city a better place to live.

"We think that being one of only three cities in the United States to have a U. S. Mint located within its boundaries would be good reason for community pride, and could help create a distinct identity for our city."

31 Letter, Lakewood Chamber of Commerce to Frank W. Rhea, April 15, 1974, Appendix F, Page F-79.

The City Council of the City of Lakewood made the following general comment regarding the Federal Center location: ³²

"NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Lakewood, Colorado, that:

SECTION 1. The City Administrator be and is hereby authorized and directed to respond to the aforesaid Draft Revised Environmental Impact Statement relating to the location of the Mint at the proposed Denver Federal Center site by communicating to the Bureau of the Mint and the Department of the Treasury the official position of the City of Lakewood, hereby adopted, that the City favors and endorses the location of the Mint at the Federal Center site; and that the City requests further and additional environmental impact studies of traffic, public transportation and housing, to the end that potential problems which might otherwise arise in such areas by reason of the location of the Mint at the Federal Center site may be addressed and solved as a part of the process of the location of the Mint at such site."

The Federal Center site would not be as convenient for tourists, either by private or public transportation. Also, as this site is rather remote from most of the other tourist attractions in the metropolitan area, it is expected that there would be a significant reduction from the recent average of 245,000 public visitors per year to the mint.

4. Alternatives to the Proposed Action.

a. No Construction

The alternative of no construction is not considered practicable. The projected demand for coins dictates that production capacity be increased. The space in the present United States Mint institutions is saturated in fulfilling current production requirements, and it is not feasible to expand the existing facilities.

b. General Area Location

Regarding the general city area location for the proposed project, detailed studies by the Treasury Department of various locations

32 Resolution 74-111, City Council of Lakewood, April 16, 1974, Appendix F, Page F-71.

in the United States have resulted in the conclusion that the Denver area is the optimum location for the new mint for the following reasons:

(1) Denver is ideal from a nation-wide coin distribution standpoint in conjunction with the other major coin production facility, the Philadelphia Mint.

(2) Denver is an excellent transportation center, with good rail and trucking facilities available for shipping coins to the West Coast, as well as the Midwest and points East as required.

(3) The labor market in Denver is advantageous in that there is a good supply of labor at reasonable rates.

(4) Electricity, gas and water are available at reasonable rates.

(5) The relocation of operations to a new mint in the same general area as an existing mint can be accomplished in a more orderly manner without substantial loss of production. A move to a distant location would result in substantial losses in production and would be very costly in terms of money and losses of experienced personnel.

c. Specific Location Within Denver Area

The specific location for the new mint in the Denver area has been the subject of much investigation and review by the Treasury Department and the General Services Administration for more than two years. A complicating factor in this process is the size of the area (30 acres minimum) required for the new facility. After thorough weighing of the pros and cons of the potential sites, the sites located at the Clayton Trust Property and the Denver Federal Center were selected for further intensive consideration.

Other locations in the Denver area were considered, primarily on the basis of a survey made by the General Services Administration at the request of the Department of the Treasury, but have been eliminated at this time because of undesirable factors in comparison to the two alternate tentatively selected sites. The sites considered and the prime reasons for their elimination are:

- (1) South Platte River from about 18th Avenue to Speer Boulevard.

This location was the subject of a previous Environmental Impact Statement, dated February 2, 1973, and had been selected for the new mint. Because of changed circumstances, summarized on page 3 of this Statement, it was subsequently determined to be unsatisfactory.

- (2) (a) Mississippi Avenue at South Huron Street (Navajo Truck Lines area).

- (b) Bayaud Street at South Pecos Street (Allied Chemical Co. area).

It has been determined that neither of these sites is for sale; major commercial activities are presently using the sites, and neither site has any advantages relative to the two tentatively selected sites.

- (3) University Boulevard at Valley High (area south of South High School).

The mint at this location would be out of place with the surrounding residential environment. In addition, the property is owned by the City of Denver and the Denver School Board and has not been offered by the city.

- (4) Mississippi Avenue at Broadway (old Samsonite Plant).

The site is too small; there would be considerable expense in relocating existing improvements, and the site would not provide an appropriate environment for the new mint.

- (5) York Street between 40th Avenue and 43rd Avenue (Union Pacific Pullman site).

This heavily industrialized area would not provide a distinctive, appropriate environment for the mint.

- (6) Denver Union Terminal Site.

On this site, part of the new mint would have to be built over five railroad tracks, a very undesirable situation. In addition, there would be adverse aesthetic features with respect to the frontage provided for the entrance and for tourist flow, and with respect to the many old multistory commercial warehouses in the area, which probably will remain for a considerable period of time.

- (7) Nome Street between 37th Avenue and 40th Avenue (Union Pacific Industrial Park).

This site is suitable from an industrial engineering standpoint, but it has disadvantages relative to accessibility for employees and tourists, and in providing a distinctive, aesthetic setting for a new mint.

(8) Rocky Mountain Arsenal.

Although this location would be suitable from an industrial engineering viewpoint, and the land is already owned by the Federal Government, it has no particular advantages relative to the Federal Center; it is not as well served by existing and planned mass transit systems, and the uncertainties regarding activities at the Arsenal make it prudent to avoid adding to the population base at this installation.

(9) A site in Aurora, north of 26th Avenue and I-70, between Tower Road and Picadilly Road.

This site has many favorable aspects, but it has no particular advantages relative to the two tentatively selected sites. Unfavorable factors are the considerable distance from the mass of housing in the Denver area and the difficulties in accessibility by employees and tourists, particularly by mass transit.

5. Probable Adverse Environmental Effects Which Cannot be Avoided.

Adverse and unavoidable environmental impacts of the proposed project for both sites are : (1) the increase in traffic congestion which its operation will bring to the areas, (2) the additions of stationary source and vehicle-generated air pollutants, and (3) the various short-term impacts during the construction period. In addition, some adverse socio-economic effects were presented in earlier portions of this Statement.

The increase in automotive traffic will be caused by the necessary transportation of the 800 employees to the facility, by the daily average of 20 trucks involved in deliveries and shipments and by busses and private cars bringing tourists to the mint. The major portion of the added traffic would be during nonpeak periods as work-shift changes and commercial trucks would be scheduled to avoid these times and tourist traffic would occur between 9 A.M. and 3 P. M. daily.

Additional stationary source and vehicle-generated pollutants would be minor and of about the same quantity and quality for both locations. Both proposed mint sites are in the Denver Air Quality Control Region (AQCR) and are subject to exactly the same air quality standards. Implementation of the State of Colorado Transportation Control Plan will require VMT reductions throughout the ACQR, primarily by means of improved mass transit. This will serve the dual purpose of reducing any vehicle-generated pollutants and of reducing traffic congestion, including the minor fraction attributable to mint traffic.

The major environmental impacts of the construction period would be felt in noise, dust, and in an increase in traffic volume. The

construction contract specifications for the project would include a section on Environmental Protection, which should minimize, although not eliminate entirely, these short-term impacts on the environment.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.

The proposed action does not involve any trade-offs between short-term environmental gains at the expense of long-term losses, nor vice versa. A new mint on either site will assure that high quality coins in sufficient quantities are produced to meet the needs of the United States. The results achieved by providing modern, clean automated facilities, designed and constructed for effective, efficient coining processes and for provision of a safe and healthful work environment, should produce a beneficial gain for the American people. No long-term degradation of the proposed areas should occur. Generally, the proposed facility should result in an enhancement of either area in conformance with adjacent developments and planned land uses.

7. Any Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Proposed Action Should It Be Implemented.

For both locations, the proposed action is compatible with other activities, surroundings and planned developments. Also, no historical or archaeological sites or buildings would be affected.

Labor and materials resources required for the construction of the project presumably would be irreversibly committed. Should, for some reason, the facility be no longer required, it would be possible, although at considerable expense, to physically remove the structures, roads, and parking lots, and return the area to an open-space condition. It is more probable, however, that if the facility were not required for making coins, an alternative office/industrial use would be found for it.

8. Other Interests and Considerations of Federal Policies That Are Thought to Offset the Adverse Environmental Effects.

The adverse environmental effects of this proposal, which do not appear to be of a major nature, are considered to be offset by the fact that a new mint is needed to provide the coinage capacity to serve the requirements of the economy of the United States and that the Denver area is an ideal location for such a facility. In addition, Federal policies and programs, particularly in light of growing air pollution and energy use problems, are expected to be continued and accelerated toward the objective of providing mass transit systems and other alternatives to the use of present configuration private automobiles as the primary means of transportation. This should serve to reduce

the traffic congestion and air pollution adverse impacts.

9. Problems and Objections Raised by Other Federal, State, and Local Agencies and by Private Organizations and Individuals.

Numerous comments on the Draft Revised Environmental Impact Statement were received. Substantive comments are attached hereto in Appendix F.

The comments received relate primarily to traffic congestion; estimates of additional VMT, air quality and potential air pollution; and economic and social impacts of the proposed project. The discussion of these matters, and others, has been expanded in the appropriate sections of this final statement from that presented in the draft statement, in an attempt to resolve, or present more fully, the issues raised in the various comments.

1. A Public Transportation Plan for Colorado's Regional Transportation Districts, Summary Report, March 1973. (Footnote 2)
2. Letter, Regional Transportation District to Frank W. Shea, April 24, 1974. (Footnotes 3, 13 and 14)
3. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973. (Footnotes 4 and 9)
4. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971. (Footnote 5)
5. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver. (Footnote 6)
6. Letter, State Historical Society to Frank W. Shea, April 3, 1974. (Footnotes 7 and 11)
7. Letter, State Historical Society to Frank W. Shea, April 15, 1974. (Footnotes 8 and 11)
8. CONCEPT: LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consultation. Was adopted as of date of this statement. (Footnote 10)
9. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974. (Footnotes 12 and 15)
10. Summary of the 1971 Joint Regional Planning Program article and discussion which covers the project.

Table of Documents Referred to in Final Revised Environmental Impact Statement for the Location and Construction of the Proposed New Denver Mint.

The following is a list of the documents referred to in the Statement. As stated on Page 5 of the Statement, these documents are available for consultation by any interested person at the office of the Bureau of the Mint Facilities Project Manager, Denver Mint, 320 West Colfax Avenue, Denver, Colorado 80204.

The documents are listed in the order of their mention in the Statement, and each document in the set available for inspection has been numbered with the respective number in the list.

1. Letter, Mayor of the City and County of Denver to Frank W. Rhea, February 12, 1974. (Footnote 1)
2. A Public Transportation Plan for Colorado's Regional Transportation District, Summary Report, March 1973. (Footnote 2)
3. Letter, Regional Transportation District to Frank W. Rhea, April 24, 1974. (Footnotes 3, 13 and 16)
4. Regional Land Use, Highway and Public Transportation Plans, Denver Region, Regional Council of Governments, Summary Report, October 1973. (Footnotes 4 and 9)
5. Denver 1985, A Comprehensive Plan for Community Excellence, Denver Planning Office, January 1971. (Footnote 5)
6. Resolution No. 6, Series of 1974. Introduced by the entire Council. A resolution urging Mint Director Mary Brooks to keep the Mint within the City and County of Denver. (Footnote 6)
7. Letter, State Historical Society to Frank W. Rhea, April 3, 1974. (Footnotes 7 and 11)
8. Letter, State Historical Society to Frank W. Rhea, April 18, 1974. (Footnotes 8 and 11)
9. CONCEPT:LAKEWOOD, November 1973. A Comprehensive Plan for the City of Lakewood. Final Draft for community consideration. Not adopted as of date of this Statement. (Footnote 10)
10. Letter, Colorado State Department of Highways to the Treasury Department, February 11, 1974. (Footnotes 12 and 15)
11. Results of the 1971 Joint Regional Planning Program origin and destination study suggest the average work trip length for the Denver region was about seven miles. Letter, Denver Regional Council of Governments to Frank W. Rhea, April 24, 1974. (Footnote 14)

12. Letter, General Services Administration to Frank W. Rhea, April 24, 1974. (Footnote 17 and 18)
13. Letter, Colorado Department of Health to Frank W. Rhea, April 18, 1974. (Footnote 19 and 22)
14. Colorado State Health Department Document on Denver Air Quality Control Region Air Quality Measurements, December 18, 1973. (Footnotes 20 and 21)
15. Letter, Environmental Protection Agency to Frank W. Rhea, May 6, 1974. (Footnote 23)
16. Transportation Control Strategy Development for the Denver Metropolitan Area, December 1972, prepared by TRW Transportation and Environmental Operations for the Environmental Protection Agency. (Footnote 24)
17. Letter, Public Service Company of Colorado to Frank W. Rhea, February 11, 1974. (Footnote 25)
18. Letter, Department of Housing and Urban Development to Frank W. Rhea, May 3, 1974. (Footnote 26, 29 and 30)
19. What New Jobs Mean to a Community, Chamber of Commerce of the United States, 1973. (Footnote 27)
20. Letter, Jefferson County School District Department of Planning and New Construction to Frank W. Rhea, May 16, 1974. (Footnote 28)
21. Letter, Lakewood Chamber of Commerce to Frank W. Rhea, April 15, 1974. (Footnote 31)
22. Resolution 74-111, City Council of Lakewood, April 16, 1974. (Footnote 32)

ENTERPRISE ROAD

WARD ROAD

RALSTON ROAD

W 64TH AVE

ARVADA

SHERIDAN BLVD.

LOWELL BLVD.

FEDERAL BLVD.

PECOS ST.

VALLEY HWY

S. PLATTE R.

BRIGHTON

VASQUEZ BLVD.

DAHLIA ST.

QUEBEC ST.

W. 44 AVE

WHEATRIDGE

SMITH RD.

E. 32ND AVE

E. 23 AVE

MONTVIEW BLVD

E. 17TH AVE

E. COLFAX AVE

STAPLETON AIRPORT

W. COLFAX AVE.

W. 6TH AVE.

W. ALAMEDA AVE.

W. MISSISSIPPI AVE.

W. JEWELL AVE.

W. HAMPDEN AVE

S. WADSWORTH BLVD.

S. SHERIDAN BLVD

S. FEDERAL BLVD.

S. SANTA FE DRIVE

BROADWAY

WASHINGTON ST.

EMERSON ST.

DOWNING ST.

S. UNIVERSITY BLVD.

S. COLORADO BLVD.

LEETS DALE MONACO DR

CHERRY CREEK DR.

PARKER

EVANS AVE.

DOWNTOWN DENVER AREA

1

2

3

87

70

270

0 1 2

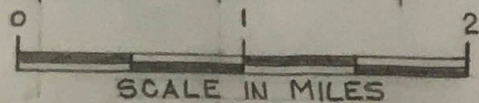
SCALE IN MILES

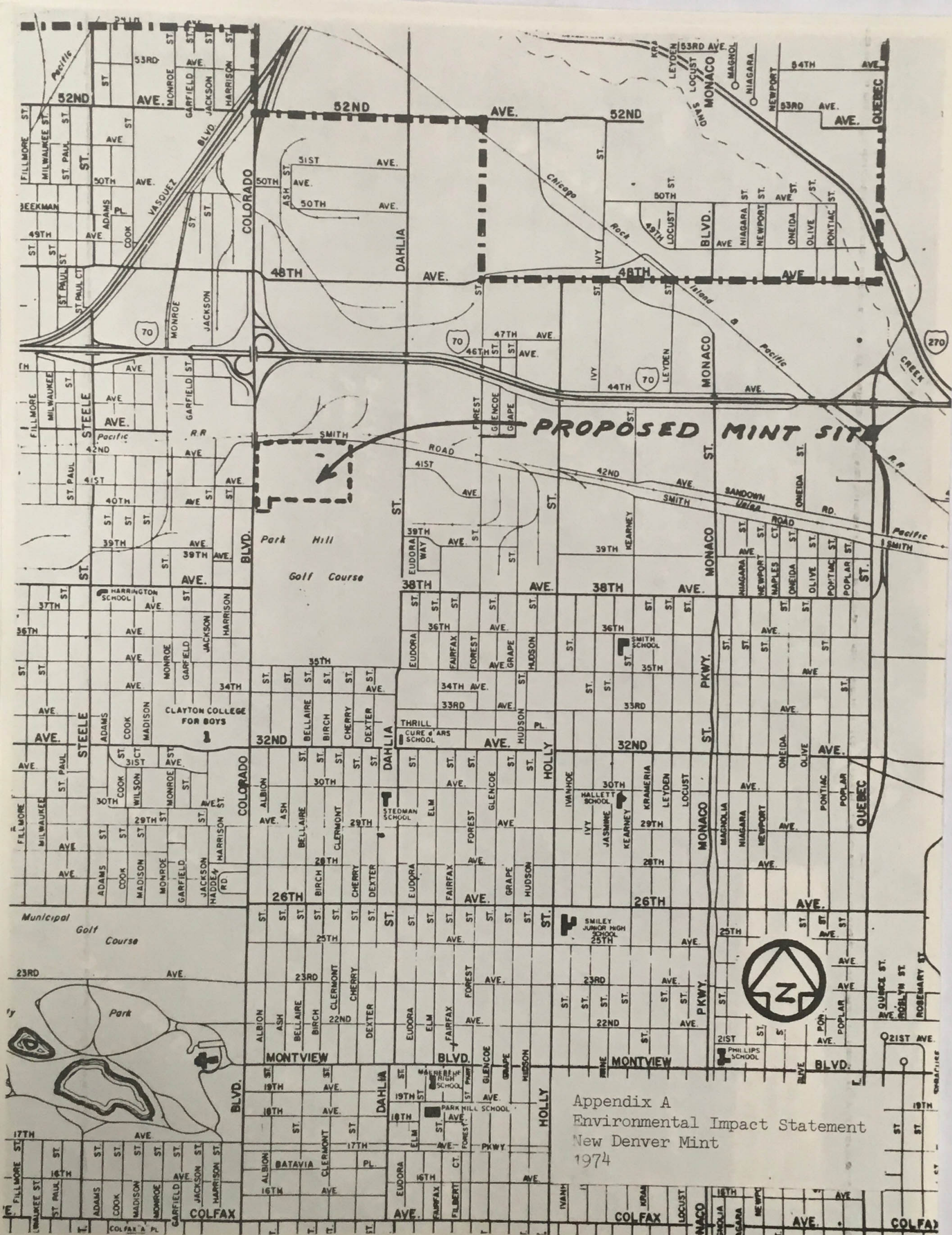
N

1 PARKHILL GOLF COURSE

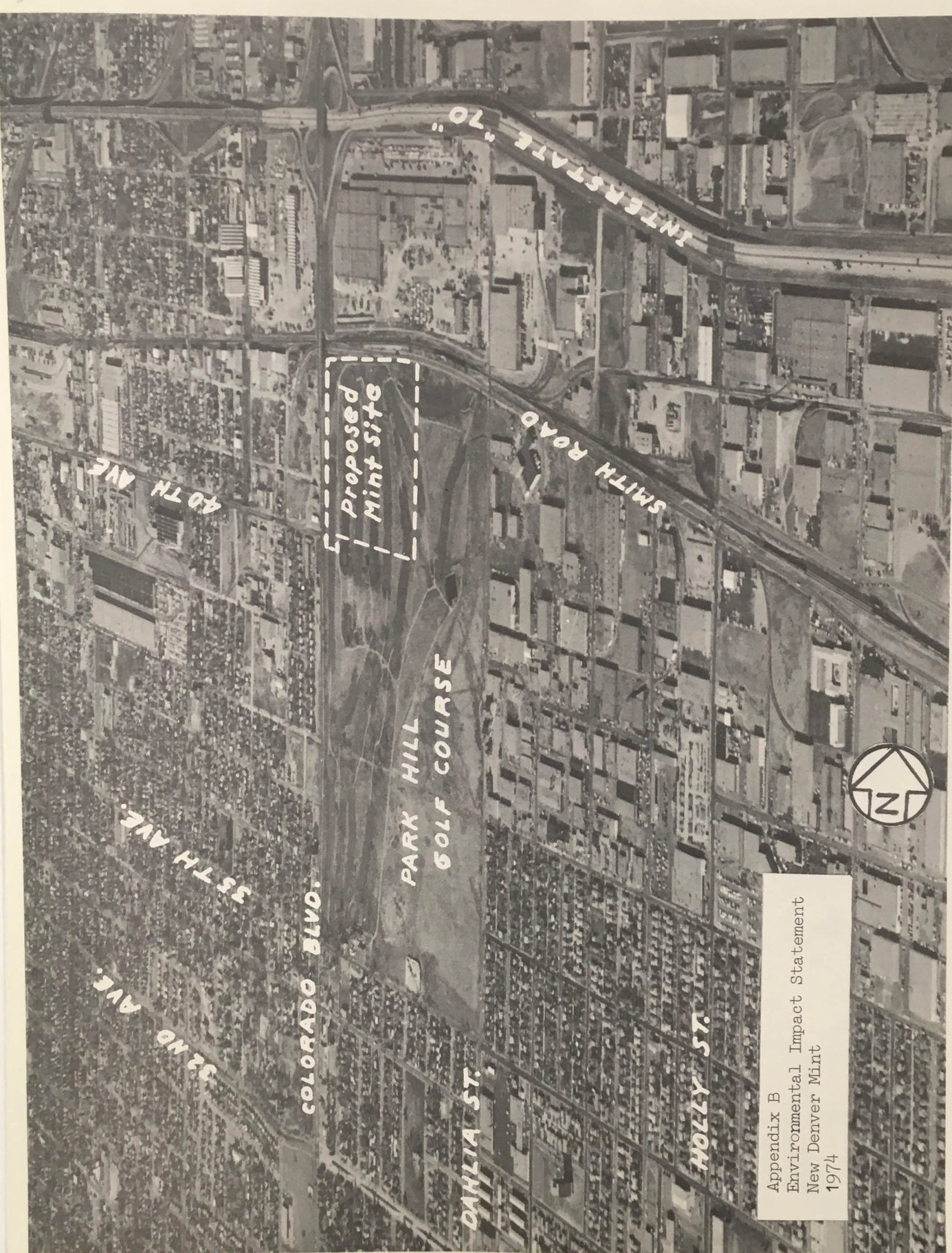
2 FEDERAL CENTER

3 PRESENT U.S. MINT





Appendix A
Environmental Impact Statement
New Denver Mint
1974



COLORADO BLVD.

Proposed
Mint Site

PARK HILL
GOLF COURSE

DAHLIA ST.

HOLLY ST.

SMITH ROAD

INTERSTATE "70"

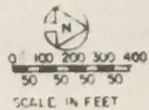
32ND AVE.

35TH AVE.

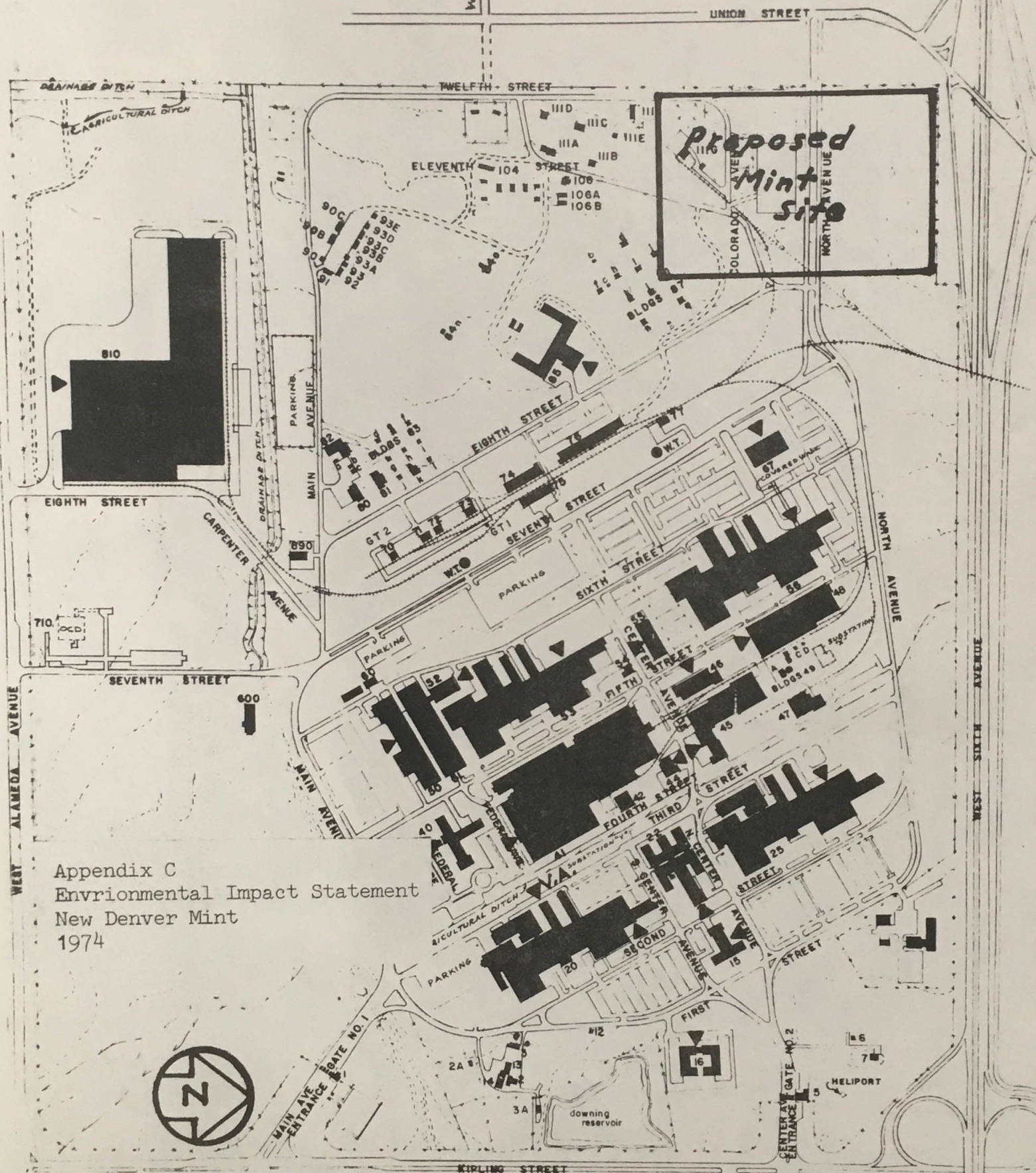
40TH AVE.



Appendix B
Environmental Impact Statement
New Denver Mint
1974



▲ Indicate Building Entrances



Appendix C
Environmental Impact Statement
New Denver Mint
1974

DENVER FEDERAL CENTER

DATE OF
REVISION: 30 OCTOBER 68



UNION ST.

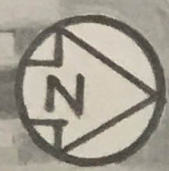
Proposed
Mint Site

ALAMEDA AVE.

WEST SIXTH AVE.

KIPLING ST.

Appendix D
Environmental Impact Statement
New Denver Mint
1974



UNITED STATES MINT
DENVER, COLORADO

CLASSIFICATION AND WAGE SCALE
OF EMPLOYEES

December 31, 1973

Attached hereto are copies of all substantive comments received on the Draft Revised Environmental Impact Statement for the proposed new Denver Mint. These comments are listed in the same order as listed in paragraph 5 of the Summary Sheet for the Draft Revised Environmental Impact Statement.

<u>Annual Salaries</u>	<u>General Schedule (White Collar)</u>	<u>Wage Board (Blue Collar)</u>	<u>Total</u>
Under \$7,000	None	None	None
\$7,000 to \$9,000	23	34	57
\$9,000 to \$12,000	42	278	320
Over \$12,000	42	42	84
	<u>107</u>	<u>354</u>	<u>461</u>

Average Annual Wage Board Salary	-	\$ 10,324
Average Annual General Schedule Salary	-	12,841
Average Annual Mint Employee Salary	-	10,839

APPENDIX F
(Pages F-1 through F-97)

Attached hereto are copies of all substantive comments received on the Draft Revised Environmental Impact Statement for the proposed new Denver Mint. These comments are arranged in the same order as listed in paragraph 5 of the Summary Sheet for this Final Revised Environmental Impact Statement.

DEC - PH SITE Final File

May 29, 1974

Comments on Davis $\Phi_{Fc} + \Phi_h$

PATRICIA SCHROEDER
FIRST DISTRICT, DENVER, COLORADO

ARMED SERVICES COMMITTEE

POST OFFICE AND CIVIL
SERVICE COMMITTEE

DISTRICT OFFICE:
DENVER FEDERAL BUILDING
1961 STOUT STREET
DENVER, COLORADO 80202
(303) 837-2354

WASHINGTON OFFICE:
1313 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-4431

Congress of the United States
House of Representatives

Washington, D.C. 20515

April 24, 1974

Mr. Frank Rhea
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, CO 80204

Dear Mr. Rhea:

After submitting my comments regarding the Draft Environmental Impact Statement on the proposed Mint sites, I became aware of the statement of the Colorado Department of Health. I would like to take issue with a portion of that report.

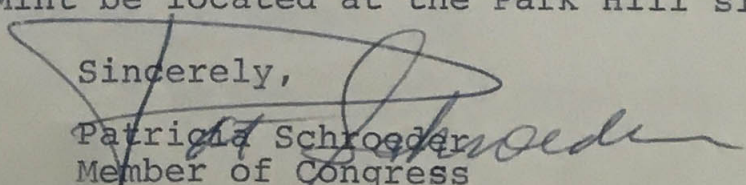
In the third and fourth paragraphs of the Department of Health's comments, it is implied that relocating the Mint in Northeast Denver will cause additional vehicle miles traveled (VMT) within the Department's control area. For example, the last sentence in paragraph four reads, ". . . no new source of generated VMT could be tolerated within the area without a corresponding reduction of VMT from another source, . . . " The Department's study did not take into consideration the closing of the Mint in downtown Denver. My Denver office verified this with Mr. Lane Kirkpatrick. Since both the present Mint site and the Northeast Denver site fall within the control area (which includes all of downtown) there would be a corresponding reduction of VMT within the area.

Also it should be pointed out that there will be an additional reduction of VMT in Northeast Denver with the closing of the Air Force Accounting and Finance Center. This should ease congestion in that immediate area.

Finally, I believe we should make every attempt to solve our pollution problems, but to do so at the expense of jobs is a harsh solution. The burden falls heavily on a small portion of the people. I believe it would be a mistake to do away with industry within the control area to cut down VMT. With proper planning and an all out effort at mass transit, we can keep the city of Denver and particularly the downtown section healthy and prosperous.

I again urge that the Mint be located at the Park Hill site.

Sincerely,


Patricia Schroeder
Member of Congress

THIS STATIONERY PRINTED ON PAPER MADE WITH RECYCLED FIBERS

cc: Mary Brooks, Director

F-1

DISTRICT OFFICE:
DENVER FEDERAL BUILDING
1961 STOUT STREET
DENVER, COLORADO 80202
(303) 837-2354

WASHINGTON OFFICE:
1313 LONGWORTH HOUSE OFFICE BUILDING
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(202) 225-4431

Congress of the United States
House of Representatives
Washington, D.C. 20515

April 22, 1974

Mr. Frank Rhea
Facilities Project Manager
United States Mint
320 West Colfax Avenue
Denver, CO 80204

Re: Draft Revised Environmental Impact
Statement of February 27 for the
New Denver Mint - Comments by Rep.
Pat Schroeder

Dear Mr. Rhea:

The Environmental Impact Statement is a superficial analysis of the proposed Federal Center and Park Hill sites. Although purporting to be neutral, its conclusions place the Park Hill site at a disadvantage because of alleged pollution and congestion. These conclusions as to pollution and congestion are without hard back-up data, and the advantages of having three major tourist attractions in the same general area are overlooked. The Statement also fails to discuss at all governmental objectives with respect to core city rehabilitation, unemployment rates and economic conditions in the areas near both sites.

I. THE ECONOMY OF THE PARK HILL AREA

The Northeast Denver area and the area immediately to the west of the Park Hill Golf Course are older areas of Denver. A high percentage of the population is low to moderate income minority and the unemployment rate is high. Evidence of the economic stagnation in the area is the almost complete closing down of two shopping centers, the Holly Street Shopping Center and the Dahlia Shopping Center. In addition, the Gem Discount Store has left the area. The Mint, with the accompanying service industries, restaurants, etc., referred to in the Impact Statement would have a substantial beneficial effect on reversing this trend.

II. JOBS IN THE NORTHEAST DENVER AREA

Park Hill is losing one of the larger federal installations

Mr. Frank Rhea
Page Two
April 22, 1974

in the metropolitan area, the United States Air Force Finance Center. While that Center is not leaving the metropolitan area, it is moving further from the Northeast Denver area and the impact of that move upon Park Hill will be substantial. Northeast Denver has few large industries which provide jobs at various economic levels. The new industries which have come to the metropolitan area have located either in suburbs of Denver or at some distance from Denver. The IBM plant, for instance, is north of Boulder; the Martin-Marietta plant is south of Littleton; the Gates plant is moving from Denver proper to Arapahoe County, south of Littleton; Johns-Manville has moved to Greenwood Plaza in Greenwood Village which is in Arapahoe County. Other instances can be named. Placing the Mint at the Park Hill site would provide permanent jobs for residents of the area and would make it easier for the construction contractor to comply with all affirmative action programs required by his contractor.

III. CORE AREA STABILIZATION

One of the patterns which the federal government as well as other governments has been trying to reverse is the movement away from the core area city. On page 17, the Statement discusses the change in employment residential patterns and indicates that the effect in Denver would be slight with some movement away from the immediate downtown area to the northeast. Two miles to the northeast from the immediate site of the present Mint would still be in the core area of Denver.

On page 18, the Statement points out that movement of the Mint to the Federal Center would result in a substantial movement away from the core city. In addition, it is pointed out that vacant housing, particularly in the low and moderate income ranges, is in short supply in Lakewood near the Federal Center and that some Mint employees might have difficulty obtaining housing in immediate proximity to the site. Low and moderate income housing is available in the northeast Denver area and the movement of Mint employees into the area would help to stabilize the population.

IV. EFFECT ON SCHOOLS

The areas which are closest to the Mint site in Northeast Denver contain segregated schools, and the Denver Public School system is under federal court order to desegregate

Mr. Frank Rhea
Page Three
April 22, 1974

them. We believe that the location of the Mint within the Park Hill site would have a substantial beneficial effect of bringing into the area a number of medium income black and white families, which would help to naturally integrate the area schools, both economically and racially.

In addition, the school systems in northeast Denver are under capacity while the Lakewood system is continually expanding to take in new residents. The Impact Statement indicates that the additional Mint residents in Denver would add about 150 pupils to the school system, which would add to the congestion in the Lakewood schools. The Denver area schools can absorb this increased number of pupils without expansion.

V. AIR POLLUTION

The increase in the number of cars travelling to the Park Hill mint site would not be as substantial as an increase over the present traffic as would be the increase in traffic to the Federal Center site. The statement admits that fewer additional employee VMT's would result from location of the Mint in Northeast Denver. Not only would there be fewer additional employee VMT's but there would be fewer additional tourist VMT's. Three of the sites visited most in the Denver metropolitan area by the tourist are the Museum of Natural History, the Zoo and the Mint. The Museum of Natural History, and the Denver Zoo both are located just off Colorado Boulevard only a few blocks south of the Park Hill Mint site. Therefore, to have the Mint in the Park Hill site would not only lessen the increase in VMT's by employees of the Mint but could reduce the VMT's of the Denver area tourist and perhaps would contribute to a net reduction in the air pollution in the Denver metropolitan area rather than an increase as is implied in the Impact Statement.

The Statement uses as its source for air pollution data the measuring station at the school administration building. That site is not representative of the Park Hill site. The school administration building is several miles from the Park Hill site, it is close to the downtown financial and shopping district of Denver, it is close to Interstate Highway 25 which is a main north-south highway through downtown

Mr. Frank Rhea
Page Four
April 22, 1974

Denver, and it is close to the South Platte River and Cherry Creek along which air pollution tends to settle and move.

The data included in the Statement is a statistical analysis of suspended particulates which come from stationary sources, and, (page 12) indicates the amount of additional stationary source pollutions generated at either site would be negligible. However, the Statement confuses the reader by using the measurements of suspended particulates, which are generated only by stationary sources, in the context of the discussion of the goals of reduction the auto caused air pollution. It should be made clear that additional VMT's in the Northeast Denver area will have no known effect on the amount of suspended particulates in that area, and that the quoted data with respect to suspended particulates has no relevance to the quoted goals of the state of Colorado and the EPA of attaining air quality standards with respect to Hydrocarbons by 1977 (see page 15).

While the Statement refers to several sources of information in previous portions thereof, the last paragraph of page 15 fails to cite source material. This is because there has been insufficient monitoring to support it and there is no source material which could be cited therefor. Admittedly, the worst pollution levels are in the Central Business District of Denver proper along the South Platte River, but the Park Hill site is not in the Central Business District and is not along the South Platte River.

In the last sentence of the paragraph referred to above, the statement is made that "during periods of highest pollution levels, . . . pollutants from the Park Hill vicinity would tend to reinforce these high concentrations to a small degree." The Mint will be operated 24 hours per day, with shift changes adjusted to avoid periods of high traffic and high pollution. According to the meteorological data cited, any pollutants from the Park Hill site would be blown away from the South Platte River Valley site at the time of two of the three shift changes (see page 19) and during most of the operating time of the Mint.

Admittedly, there are a high number of automobiles using I-70 and Colorado Boulevard. However, they are the

Mr. Frank Rhea
Page Five
April 22, 1974

only carriers of a high volume of autos in the Northeast Denver area. There are four streets and highways immediately adjacent to the Mint site at the Federal Center, and I-70, West Colfax Avenue and other major east-west and north-south routes which contain a high vehicle count also are located in close proximity to the Federal Center. While any one of those streets may not carry the traffic that I-70 and Colorado Boulevard do, the total traffic is substantially more.

In addition, while there is little reason for substantial increase in the amount of traffic using Colorado Boulevard adjacent to the site, there is substantial reason for increase in automobile traffic along the streets and highways near the Federal Center as the west suburban population increases.

For some reason, the measurement of traffic on 6th Avenue is taken west of Kipling. Yet the Statement indicates that most of the employees at the Federal Center will reside east of Kipling between Kipling and Denver. No measurements are provided of automobiles along 6th Avenue leading toward Denver. The measurement of that area would show a substantial number of automobiles over and above the count shown west of Kipling. On parts of 6th Avenue, such a count probably would be higher than the count of cars on I-70 at the intersection of Colorado Boulevard.

On page 10 of the Statement, the statement is made that the additional traffic generated by the Mint would tend to coincide with the direction of existing traffic and would add to existing congested conditions on Colorado Boulevard and on I-70. There is no authority cited for this statement. Since neither site is in the Central Business District, it would appear that the Mint employee traffic from either site would be counter-directional to the mass of rush hour movement, which is city-center oriented in the morning and outbound oriented in the afternoon.

On page 10 the Statement points out that the site in Park Hill is served by Denver Metro Transit buses and that the Personalized Rapid Transit System will be providing a line which will be, at its closest point, approximately two miles from the Mint. While the statement emphasizes that employees and visitors would have to transfer to buses from the PRT system in order to get to the Mint from the

Mr. Frank Rhea
Page Six
April 22, 1974

downtown area, a similar situation at the Federal Center site is ignored. Presently there is no bus line serving the Federal Center Mint site.

While the probabilities are that public transportation to each site will be improved and the usage by the employees of the Mint increased, the Statement indicates employees will live further from the Federal Center site than from the Park Hill site. This would tend to dictate against as much usage of the public systems by the Mint employees if the Mint is located at the Federal Center as compared with its location in Northeast Denver, and thus the net amount of addition VMT's attributable to the Federal Center site will probably be greater than the Statement admits.

VI. CONCLUSION

On page 19 and 20 of the Statement, conclusory remarks with respect to the Park Hill and Federal Center sites indicate that both are excellent. It is interesting to note that in describing the access to the sites the remarks indicate that the Park Hill site "would have good access for tourists and official visitors and would involve minimum economic and social impact on the Denver area." With respect to the Federal Center site, it is stated that "the site would have fair access for tourists and official visitors." There is no statement with respect to the economic and social impact on the Federal Center area.

The access by tourists and visitors is deemed to be less favorable at the Federal Center than at the Park Hill site while the economic and social impact on the Federal Center area apparently is deemed to be more than minimal. Part of the reason for the difference in the rating of the access is the distance of the Federal Center from Stapleton Airport as compared with the close proximity of the Park Hill site to Stapleton Airport and the status of public bus systems in the areas. Obviously, the difference in the impact upon the areas is wrapped up in those reasons discussed above, the impact on schools, and the lack of low and moderate income housing in Lakewood.

In summary, the net adverse impact environmentally

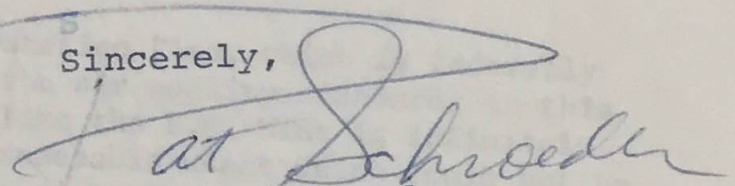
Mr. Frank Rhea
Page Seven
April 22, 1974

will not be as great in the Northeast Denver area as the Environmental Impact Statement would lead one to believe. The Statement is slanted toward the Federal Center site in that automobile traffic, public transportation, and congestion comparisons are inaccurate or at least misleading. It is obvious that the possible reduction of pollution by virtue of having three major tourist attractions in the same area has been overlooked. Also overlooked was the economic impact of the Mint upon Northeast Denver which will have a substantial beneficial effect upon the environment of the area by tending to stabilize its population and its schools.

Conversely the adverse impact upon the Lakewood area has been minimized by the Impact Statement. The Lakewood area does not have the needed housing nor adequate school facilities to take care of the increased population. The increase in cost to the City of Lakewood in providing adequate services for the increased population is unnecessary and wasteful when the Denver schools are ready, willing and able to accommodate the increased school population and the services necessary to provide for the increased population are already installed.

With kind regards.

Sincerely,


Patricia Schroeder
Member of Congress

PS:r

DISTRICT OFFICE:
DENVER FEDERAL BUILDING
1961 STOUT STREET
DENVER, COLORADO 80202
(303) 837-2354

Congress of the United States
House of Representatives
Washington, D.C. 20515

WASHINGTON OFFICE:
1313 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-4431

March 26, 1974

Mrs. Mary T. Brooks, Director
Bureau of the Mint
Department of the Treasury
Fifteenth & Pennsylvania Sts., N.W.
Washington, D.C. 20220

Dear Mrs. Brooks:

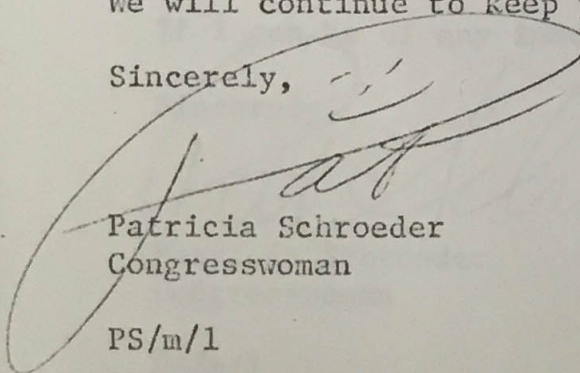
On Thursday, March 14, the Board of Directors of the Denver Chamber of Commerce, representing more than 3,000 members from throughout the Denver metropolitan area, adopted the attached position statement concerning relocation of the U.S. Mint. The statement, along with certain supporting information, is forwarded for your review in the unlikely event you have not already seen it.

I urge your special attention to the report of Mr. Gerald P. Wood, Director of the Air Pollution Control Division, Colorado Department of Health. I was particularly interested to note that Mr. Wood's computations indicate almost no additional vehicular miles/day for the Park Hill site (10,221 v. 10,128) but almost double the current level for the Federal Center site (19,438 v. 10,128). Mr. Wood concludes:

"As we discussed, the State Implementation Plan, which is federally approved, is designed to implement the air quality standards in this decade and a relatively clean unit like the U.S. Mint is infinitely preferable in Park Hill to other foreseeable usage which could not be easily prevented on the grounds that plans to use the remaining land for industrial purposes are now afoot.

We will continue to keep you advised.

Sincerely,



Patricia Schroeder
Congresswoman

PS/m/1

Encls:

PATRICIA SCHROEDER
FIRST DISTRICT, DENVER, COLORADO

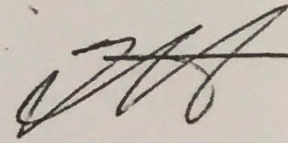
ARMED SERVICES COMMITTEE

POST OFFICE AND CIVIL
SERVICE COMMITTEE

DISTRICT OFFICE:
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1961 STOUT STREET
DENVER, COLORADO 80202
(303) 837-2354

WASHINGTON OFFICE:
1313 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-4431

Congress of the United States
House of Representatives
Washington, D.C. 20515



March 19, 1974

Mary T. Brooks, Director
Bureau of the Mint
Department of the Treasury
Fifteenth and Pennsylvania Sts., N.W.
Washington, D.C. 20220

Dear Mrs. Brooks:

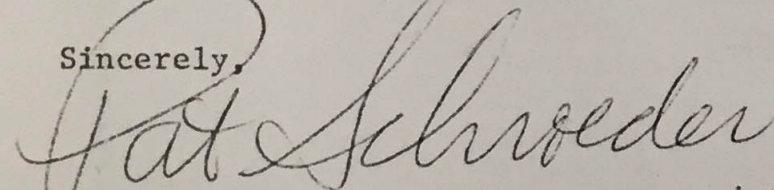
I received on March 4, a copy of the DRAFT Revised Environmental Impact Statement, examining two possible sites for the new Mint facility in Denver. Those of us who are interested in retaining the facility within the City were particularly pleased to see that the Park Hill site received a generally favorable review.

Although comments were not officially requested from this office, I am taking the liberty of preparing responses to the minor concerns raised in the Impact Statement with respect to Site A. These will be ready well before the end of the formal comment period, which I understand to be May 6.

In the meantime, though, I wanted to make sure that you had seen the rather extensive petitions circulated in support of this site among those who will be the most immediate neighbors of the facility. I know there has been some concern (particularly on Mr. Rhea's part) with this aspect of the proposal. Perhaps it bears repeating. I can't recall in a situation such as this, ever seeing so much enthusiastic neighborhood support. Copies of the petitions are enclosed for your review.

If I can be of any immediate assistance to you, please let me know.

Sincerely,


Patricia Schroeder
Congresswoman

PS/m/1

Encls:

*Please let me know
if I can do
anything
further!*

March 22, 1974

The Honorable
Patricia Schroeder
Congress of the United States
House of Representatives
Washington, D. C. 20515

Dear Mrs. Schroeder:

We received today your letter and the very impressive accompanying petitions in favor of the Park Hill site for the new Denver Mint. It will be placed at the top of Mrs. Brooks' reading material for when she returns to Washington on Tuesday, March 26.

This intense public interest is certainly not going to go unnoticed as we evaluate our alternatives.

Sincerely,

(Signed)

Frank H. MacDonald
Acting Director of the Mint



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80203

MAY 6 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The Region VIII Office of the Environmental Protection Agency has reviewed the draft environmental impact statement for the construction of the new United States Mint.

In general, the statement adequately addresses the alternatives and impacts of the proposed project. We would like to offer comments on several issues involved with determining the environmental impacts of this project.

A. Air Quality Impacts and the Denver Transportation Control Plan

EPA's principal concern with vehicle-miles per day traffic (VMT) and on-site emissions with either of the proposed Mint site alternatives involves how such a decision at one or another site will affect the attainment of air quality standards as proposed in the transportation control plan (TCP) for the Denver Air Quality Control Region.

The TCP does call for a reduction of VMT in the Denver area in order to meet these standards. How these reductions are to be applied to a specific case such as the Mint has not been fully examined. While incremental VMT increases might in some cases be permitted, EPA would expect that such increases be offset by mitigating measures such as improved traffic flows, increases mass transit use, etc. It is thus important to develop some estimate of the overall impact on air quality for each site with and without the initiation of such mitigation measures.

The techniques used in analysis of VMT increases in the environmental impact statement are reasonable for assessing impacts on air quality in the light of the current state of the art. We do feel that a number of other factors should be considered in assessing air quality impacts at one or both sites.

1. The EIS calculates net increases in VMT at both sites from Mint commute traffic. The analysis should be expanded to include the impact of visitor traffic to the Mint as well.

2. Because traffic to the Denver Federal Center site would be counter flow to the peak morning and evening rush hour traffic, a net increase in traffic speed could be possible. Whether an actual decrease in emissions would occur could only be determined by a computer simulation of the changes in the entire metropolitan highway system.

3. Most of the emissions from this Mint-related VMT will occur outside of the immediate site areas, whichever is chosen.

4. The specific site locations at the Federal Center or the Park Hill site might result in changes to and from the present transportation modes, including bus transit, bicycle or pedestrian modes. These changes could add to or subtract from the projected VMT values in the EIS. The effect of improved mass transit could also result in transportation mode shifts.

5. Some residential relocation is projected in the EIS for each of the sites. These moves would also affect the VMT emissions. The differential housing markets in Lakewood and Denver as mentioned in the EIS might help or hinder such relocations.

An exhaustive analysis of the ultimate air quality impacts occurring from either site would involve complex modeling and estimates of decisions about housing relocation and transportation use that may or may not occur. EPA feels that at this point, the relative merits of one site versus another from an air quality standpoint are unclear. There are further complications involved in determining where the VMT reductions should occur that make it difficult to single out one or another site.

If carbon monoxide is the air pollution parameter of concern, then reducing VMT in the downtown area, even with some increase in the outlying urban areas, could result in a decrease in the maximum observed concentrations. This would be a beneficial transportation technique for meeting air quality standards.

However, recent evidence indicates that control of oxidants may be more critical for the Denver area. Recent sampling data suggests that oxidants may be dispersed relatively uniformly over the Denver metropolitan area. If this is the case, a control of overall VMT

The EIS should also estimate what reduction in peak free VMT could be expected if staggered work hours were to be introduced at the Mint.

related emissions becomes more important than spatial distribution of these emissions.

The state of the art for predicting air quality impacts is not well-enough defined at this point in time, to be able to set hard and fast rules about how VMT sources are to be controlled. Diffusion models for oxidants have only been recently developed and tested. EPA will continue to press for better predictive techniques and will recommend predictive procedures when better techniques become available.

It should be remembered that the transportation control plan is a continuing process. Better predictive techniques, annual air quality sampling information and assessments of how well the technological improvement to automobiles (retro-fit devices, high altitude modification, etc.) are working, will vary likely result in changes in strategy of how the air quality goals are to be met.

It should also be emphasized, however, that VMT reductions may continue to be required in the Denver area to meet standards. In this situation, the Denver mint traffic would be expected to bear a proportionate share of the decrease in VMT.

The value of this NEPA review is to anticipate such a situation of VMT reduction requirements, to avoid unnecessary VMT increases if possible, and to explore possible mitigating measures that would allow a VMT decrease.

The EIS has suggested to its credit a number of possible TCP alternatives to the present VMT projection, namely increased mass transit and staggered working hours. EPA feels that the mass transit alternative in particular needs close attention. The Treasury Department should attempt to assess what the effect on current transportation modes-walking, bicycling mass transit, etc will be at each of the two sites, perhaps by an employee survey. The questions asked should also include how many employees could utilize available or improved mass transit as well as those who would do so at present. The Treasury Department in turn should work closely with the Regional Transportation District to provide for the best available mass transportation. The final EIS should indicate what mass transportation will be available when the new Mint begins operation at either site. In particular, this assessment should focus on the likelihood of such mass transportation at each site.

The EIS should also estimate what reduction in peak from VMT could be expected if staggered work hours were to be introduced at the Mint.

The final EIS should also factor visitor traffic into its VMT calculations, for the analysis they have developed.

B. AQCR Demonstration Areas

The statement on page 15 that certain reductions of emissions are required in the "demonstration areas" is not strictly correct; the reductions are required throughout the Denver Air Quality Control Region (AQCR).

The demonstration area was only utilized as a tool to determine amounts of reduction in emissions necessary throughout the AQCR. As such it has no legal standing. Both Mint sites are inside the AQCR and are subject to exactly the same air quality standards.

C. Water Quality

No quantitative information was available in the EIS on projected water uses at the new Mint. The EIS mentions that no discharge will occur from the cooling processes, but we take this to mean no discharge to a waterway. Certainly recycled cooling water will have to be diluted with make-up water, and salt concentration will have to be limited by periodic flushing of cooling water into the sanitary sewer system.

The EIS should address the amounts of water to be used, pollution treatment, and expected amounts of discharge from all operations to the sanitary system. Existing collection sewer facilities should be checked at their respective sites, to insure that there is adequate capacity to handle the projected flows.

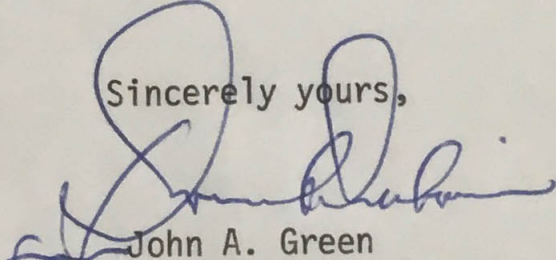
Further, an estimate should be made of the amounts of all waterborne pollutants to be discharged from the Mint to the sewage facility. This is important to insure that incompatible pollutants are kept from reaching the biological treatment processes.

In view of the comments you have received concerning air quality from the Colorado Department of Health, we would be receptive to discussing the air quality issue with you and the State at any time.

I hope that these comments will aid in the preparation of the final EIS. According to the category system developed by EPA for evaluating environmental impact statements, we have rated this project LO-2. We feel that additional information should be included in the final EIS. A copy of our rating system is included for your information.

Please send us a copy of the final statement.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "John A. Green", is written over the typed name.

John A. Green
Regional Administrator

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

P. O. Box 17107, Denver, Colorado 80217

April 22, 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The revised draft environmental impact statement for construction of New United States Mint, dated February 27, 1974, that was addressed to the Coordinator of Environmental Quality Activities, U. S. Department of Agriculture, was referred to the Soil Conservation Service for review and comment.

1. Page 7: The latest "Denver 1985, A Comprehensive Plan for Community Excellence" on page 125 shows the Park Hill Golf Course site as "Proposed Parks". Is there a later publication of this document available to the public?
2. Pages 5, 6, and 17: Statements are made that water, electricity, sewage and other utilities are nearby. Are these utilities adequate for the additional capacities that will be required for the new mint?
3. Are there any other projects which will have an effect on this proposal? As an example, Federal Highway Administration, Colorado Division of Highways Project No. M5323(001), extension of South Kipling Street from West Alameda Avenue to U.S. 285.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

R.D. Anderson, Acting

M. D. Burdick
State Conservationist

cc: Council on Environmental Quality (5 copies)
K. E. Grant, Administrator, SCS (1 copy)
Coordinator of Environmental Quality Activities (1 copy)



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DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
6014 U. S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

MROPD

19 March 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This responds to your letter of 6 March 1974 to the Executive Director of Civil Works, Office of the Chief of Engineers, in which you requested their review of the Draft EIS for the proposed New Denver Mint.

Your letter was referred to this office for answer. Please consider our reply of 13 March as a response to this letter also. We are inclosing a copy of the 13 March letter for your convenience.

Sincerely yours,

A handwritten signature in blue ink, reading "C. F. Thomas", is written over the typed name.

C. F. THOMAS
Chief, Planning Division

1 Incl
As stated

MROPD

13 March 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This responds to your letter of 6 March 1974 in which you requested our review of the Draft EIS for the proposed New Denver Mint.

We have reviewed the draft and find that neither site is situated in a flood plain. The proposed project will not have any impact upon any of the Corps of Engineers existing projects or current studies.

Sincerely yours,

C. P. THOMAS
Chief, Planning Division

Cy furn:
General Counsel, CEQ (10 cys)
Exec. Office of the President
722 Jackson Place, N.W.
Washington, D.C. 20006

HQDA (DAEN-CWE)



DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
6014 U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

MROPD

13 March 1974

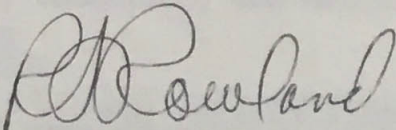
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C. F. THOMAS
Chief, Planning Division



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF THE SECRETARY

WASHINGTON, D.C. 20201

MAR 8 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver, Mint
320 West Colfax Avenue
Denver, Colorado 80204

RE: Draft (Revised) EIS
Construction of New U.S. Mint
Denver, Colorado

Dear Mr. Rhea:

This will acknowledge receipt of your letter dated March 6, 1974 transmitting the above-mentioned draft Environmental Impact Statement.

We have forwarded this statement to Mr. Joseph Cover, the Regional Environmental Officer in this area, and he will respond directly to you. If you have any questions concerning this statement, please address them to:

Mr. Joe Cover
Regional Environmental Officer, Region VIII
Department of Health, Education, and Welfare
9017 Federal Building
Denver, Colorado 80202

We appreciate the opportunity to comment on this statement.

Sincerely,

Charles Custard
Director,
Office of Environmental Affairs

Memorandum

TO : Frank W. Rhea, Facilities Project Manager
Bureau of the Mint, Denver, Colorado

DATE: April 1, 1974

FROM : Joseph W. Cover, REO, Region VIII

REFER TO:

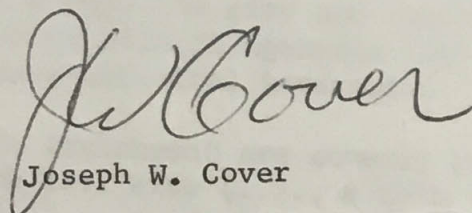
SUBJECT : Draft EIS - Construction of New United States Mint,
Denver, Colorado

The Draft Environmental Impact Statement on the proposed construction of the new United States Mint, Denver, Colorado, has been reviewed during March.

All comments received from HEW reviewers indicate that the information contained in the Draft EIS is factual, and the environmental impact stemming from the proposed action projects significant impact on the human environment.

Alternatives are well defined, as are the proposed safeguards to minimize environmental impact for either site.

This office is satisfied with the information contained in the Draft EIS and concludes that the Draft EIS, in this instance, has served its intended purpose.


Joseph W. Cover

cc: Office of Environmental Affairs
Att: Phyllis Hayes
Council on Environmental Quality
Att: Warren Muir



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 19TH. AND STOUT STREETS
DENVER, COLORADO 80202

May 3, 1974

REGION VIII

IN REPLY REFER TO:

8D/M

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Department of the Treasury
Denver, Colorado 80202

Dear Mr. Rhea:

This is in response to your letter dated March 6, 1974, which requested our comments on the Revised Draft Environmental Impact Statement for relocation of the Denver Mint.

As you know, the Department of Housing and Urban Development is primarily concerned with (1) the effects of a proposed action on the urban environment and (2) the compatibility of the action with the comprehensive planning for the area. Assessing these considerations, this office believes that several impacts, resulting from relocation of the Denver Mint out of Denver, would run counter to the continued efforts of Federal agencies to stimulate and renew the core city which serves as the sustaining element for the entire Denver Standard Metropolitan Statistical Area (SMSA).

HUD has invested approximately \$80 million for Community Development with the goal of arresting blight, stabilizing neighborhoods and providing a decent living environment within the city and county of Denver. We are most concerned that other Federal agencies take actions which protect and enhance this substantial investment.

Illustrative of the magnitude of HUD's investment are several projects located in close proximity to the Park Hill site (i.e., within the two-five mile commuting area referred to on pages 9 and 10 of the statement).

The projects are summarized as follows:

Whittier Urban Renewal

In the 29 block Whittier Urban Renewal Project in Northeast Denver, HUD spent \$2.9 million. An additional \$1.9 in public improvements was financed by the city of Denver and Denver Urban Renewal Authority.

Residents of the area spent almost \$1 million for home improvements for some 658 units of housing and 67 units of Federal Housing Administration (FHA) 221(d)3 rent supplement were created.

Mitchell

The Mitchell Urban Renewal Project, bounded generally by portions of East 29th and East 28th Avenue, Lafayette Street, 32nd Avenue and High Street is immediately northeast of the Whittier Urban Renewal Project. The Mitchell Project, covering 19-1/2 blocks is, likewise, a neighborhood rehabilitation program with some clearance and housing redevelopment. HUD financing amounts to \$5.4 million and some 335 homes are being rehabilitated.

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The Russell Park Project, located between 31st and 25th Avenue, Humboldt and York, is a residential rehabilitation program covering 25-1/2 blocks. There are 327 homes scheduled for improvement with a \$1.3 million loan pool for below-market interest rate loans made available through cooperation of five major banks in Denver. The HUD share of the project is \$3,906,656.

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Eastside Neighborhood Development Program area, bounded by East 20th Avenue, Washington Street and Glenarm, will be redeveloped with nearly 450 units of low and moderate income housing. HUD has provided \$6 million to carry out this residential redevelopment activity. Regional transportation district plans call for a rapid transit line not far from the south border of the project, giving residents in the project access to public transportation to all parts of the Denver area.

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Not all HUD assistance in northeast Denver has been for residential purposes. The Blake Street Project, located between 33rd Street and 40th Street on Denver's near north side, provided for removal of severely blighted residential structures for industrial and commercial redevelopment. Total HUD financing was \$1.7 million.

Other Significant HUD Projects affecting Northeast Denver

Money allocated to Denver as a result of HUD Model Cities supplemental funds and funds appropriated through state, city, Federal, and

private sources in the four years, 1970 - 1974, are as follows:

HUD	\$ 24,564,000
State of Colorado	633,000
City of Denver	12,132,000
Other Federal	80,411,000
Private	<u>1,123,000</u>
TOTAL	\$ 118,863,000

(Source: Urban Resources Development Agency Annual Report, 1973)

Recently completed was the Federally-assisted code enforcement, FACE program, to which HUD committed \$7,187,625. Rehabilitation loans and grants through December 31, 1973, totaled an additional \$4,466,348.

The city and county of Denver has received substantial funds for planning efforts under the Section 701 Comprehensive Planning Program and the Community Renewal Program. The recently completed Community Renewal Program (CRP) received funding of \$1 million and the current 701 annual allocation is \$256,000. In addition, HUD's existing community development financing in Denver, not limited to the Northeast area, is sizeable:

Eastside, College View NDP	\$ 6,654,000
Mitchell UR	5,390,608
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Five Points Neighborhood Facility	500,000
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TOTAL	\$ 67,480,221

The city's contribution to community development has been from 33-1/3 percent to 50 percent to match the above grants. These, of course, will not include millions of dollars in private investment; for example, \$140 million in the Skyline Project as of April 1, 1974.

All of these programs have been aimed at improving the integrity and cohesiveness of Denver's Neighborhood and commercial areas, as well as encouraging other private and public financing to this end. Essential to the maintenance of these efforts is a supportive economic base offering employment opportunities to the residents of the city, as well as providing much-needed revenue to the city of Denver via property and sales taxes.

Employment

The core city provides a ready source of prospective employees for the facility expansion. According to the Denver Community Renewal Program publication of December 1972, the Northeast Park Hill area, itself, represents one of the largest employment sources in the city. The neighborhoods of highest unemployment concentration lie "in a concentric ring around the Central Business District (CBD) with extensions to the north, east and south." Most of these neighborhoods are situated immediately west of Colorado Boulevard between the proposed site and the CBD. This same area is burdened by an unemployment percentage ranging between 2.1 and 4.7, in excess of the city norm of 1.8 percent.

The increased job opportunities which would be provided by expansion of the Mint may help to alleviate unemployment of this area. The limited accessibility of the facility, if moved to Lakewood, would create an additional obstacle to employment of core residents and might well add to unemployment in the core by reducing job opportunities and leaving the present minority employees behind.

Social, Cultural and Educational Considerations

The relocation of the Denver Mint to the proposed Denver site would permit the present employees to conveniently remain at their current residences with little disruption of their personal activities. The 41 percent of the present employees who are minority have existing ethnic ties within the city which could be maintained. In addition, the core area offers health and social services far superior to those provided in Lakewood, particularly for present and future low and moderate income employees. Included among these services are the private and charity health services of the Denver General Hospital, the most modern and complete facility in the Rocky Mountain area. Also, established offices of city, county and state social service agencies are conveniently located within the core area, as well as such other licensing and regulatory agencies as the State Revenue Department Drivers License Office. The city plans to open branch offices of city and social services in the Five-Points Neighborhood Facility complex.

We also would like to point out that superior cultural facilities are located in the core area, such as the Botanic Gardens, museums, Denver Zoo, and performing arts facilities. It is also important that the major educational facilities are located in the core area; University of Colorado, Denver Center, Metro State College, Community College, Denver University, and Emily Griffith Opportunity School.

Metro State, soon to be a part of the Auraria educational complex, has since its inception been geared toward providing education for the under-employed and persons who are unable to attend college full time. Several of the institutions offer night classes and courses to upgrade skills for nondegree as well as degree oriented students. We believe that the convenient location of all of these facilities is important not only to the employees but also to their dependents.

From the socioeconomic standpoint, a potentially beneficial impact is that of the opportunity for minority entrepreneurship which would be available for service businesses related to Mint employees as well as tourists, in particular, economic opportunities for restaurants, gas stations, etc.

Economic Impact

If the facility were to be relocated out of Denver, the loss to the city and county of the current \$5 million annual payroll and an increased future payroll would be significant, as would be the loss of tax base from those employees who would follow their employment out of the city.

The loss of sales tax revenues and the Occupational Privilege Tax would further weaken the financial position of the city and county of Denver. The city and county of Denver is bearing the financial burden of providing facilities such as the zoo, parks, museums, etc. that are used by the citizens of the entire Metro area. That fact was recognized by the State Legislature in their appropriation of approximately \$11 million to the city and county of Denver. Any Federal action which may be taken to alleviate the inequities in the burdens of financing and maintaining these areawide facilities should receive serious consideration.

While the relocation of the Mint out of the CBD to either site will no doubt diminish tourism generated by conventions, the closer proximity and accessibility of the proposed Denver site is likely to encourage more convention-generated tourism than would the Lakewood site. Locating the Mint at the proposed Denver site would place it near the Denver Zoo and the Museum of Natural History in City Park, thus clustering major tourist attractions conveniently between the CBD and Stapleton International Airport.

Transportation

Locating the new Mint at the proposed Denver site would place the facility within greater proximity to the residences of present employees thus minimize the commuting distance between employee's residences and their place of employment. It should also be considered that automobile pollutants would be less for employees commuting to and from the proposed Denver site than to and from the Lakewood site.

As indicated on pages 9 and 10, 84 percent of the present employees live within a ten mile radius of the proposed Denver site, while only 53 percent live within a ten mile radius of the Lakewood site.

The statement further indicates that the net anticipated vehicle miles traveled (VMT) by present employees from current residences would be an estimated 1,800 vehicle miles fewer per day to the proposed Denver site than to the Lakewood site.

On pages 10 and 11 of the statement, it is pointed out that the Lakewood site, which has no Denver Metro Bus service, has been planned for Personal Rapid Transit (PRT) service. Considering that the new Mint is anticipated to be ready by 1980 and that completion of the PRT is not expected until 1982, it appears that employees could well be faced with a two year transportation void.

On the other hand the proposed Denver site is currently served by Denver Metro Buses which would be immediately convenient for employees and tourists traveling to that site.

While the Denver site has not been scheduled for direct PRT service, the Citizen Action Committees for PRT are only now in the process of determining route alignments and station locations. A station could easily be planned for the proposed Denver site if the need were indicated. This would make the Denver site even more accessible than it now is in comparison with the other proposed site.

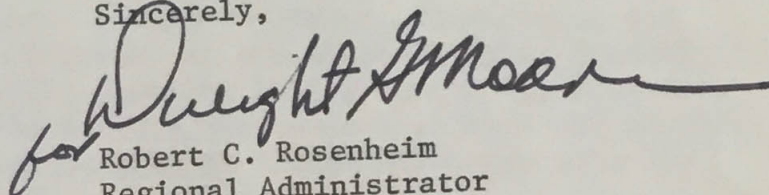
Conclusions

Relocation of the Denver Mint to either of the proposed sites would be consistent with planning for the subject areas. However, it is the position of this Department that from the standpoint of long term, areawide comprehensive planning and community development goals, the serious impacts which we have elaborated above clearly indicate that the proposed Denver site would be far superior to that of the alternate proposal.

We have enclosed a copy of the U. S. Department of Housing and Urban Development market analysis for the two sites, which was previously sent to you on April 16, 1974, in compliance with Executive Order 11512. Also enclosed are copies of letters from two Model Cities Geographic Area Committees in support of the proposed Denver site and a location map indicating the location of Federally subsidized housing and another map showing HUD sponsored renewal projects in the city and county of Denver.

We appreciate this opportunity to provide our comments pertaining to the relocation of the Denver Mint. If you have any questions regarding these remarks, or if we may be of any further assistance, please contact this office.

Sincerely,


for Robert C. Rosenheim
Regional Administrator



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL BUILDING, 19th AND STOUT STREETS
DENVER, COLORADO 80202

May 3, 1974

REGION VIII

8D/M REPLY REFER TO

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Facilities Project Manager
Bureau of the Mint
Department of the Treasury
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We also would like to point out that superior cultural facilities are located in the core area, such as the Botanic Gardens, museums, Denver Zoo, and performing arts facilities. It is also important that the major educational facilities are located in the core area; University of Colorado, Denver Center, Metro State College, Community College, Denver University, and Emily Griffith Opportunity School.

Metro State, soon to be a part of the Auraria educational complex, has since its inception been geared toward providing education for the under-employed and persons who are unable to attend college full time. Several of the institutions offer night classes and courses to upgrade skills for nondegree as well as degree oriented students. We believe that the convenient location of all of these facilities is important not only to the employees but also to their dependents.

From the socioeconomic standpoint, a potentially beneficial impact is that of the opportunity for minority entrepreneurship which would be available for service businesses related to Mint employees as well as tourists, in particular, economic opportunities for restaurants, gas stations, etc.

Economic Impact

If the facility were to be relocated out of Denver, the loss to the city and county of the current \$5 million annual payroll and an increased future payroll would be significant, as would be the loss of tax base from those employees who would follow their employment out of the city.

The loss of sales tax revenues and the Occupational Privilege Tax would further weaken the financial position of the city and county of Denver. The city and county of Denver is bearing the financial burden of providing facilities such as the zoo, parks, museums, etc. that are used by the citizens of the entire Metro area. That fact was recognized by the State Legislature in their appropriation of approximately \$11 million to the city and county of Denver. Any Federal action which may be taken to alleviate the inequities in the burdens of financing and maintaining these areawide facilities should receive serious consideration.

While the relocation of the Mint out of the CBD to either site will no doubt diminish tourism generated by conventions, the closer proximity and accessibility of the proposed Denver site is likely to encourage more convention-generated tourism than would the Lakewood site. Locating the Mint at the proposed Denver site would place it near the Denver Zoo and the Museum of Natural History in City Park, thus clustering major tourist attractions conveniently between the CBD and Stapleton International Airport.

Transportation

Locating the new Mint at the proposed Denver site would place the facility within greater proximity to the residences of present employees thus minimize the commuting distance between employee's residences and their place of employment. It should also be considered that automobile pollutants would be less for employees commuting to and from the proposed Denver site than to and from the Lakewood site.

As indicated on pages 9 and 10, 84 percent of the present employees live within a ten mile radius of the proposed Denver site, while only 53 percent live within a ten mile radius of the Lakewood site.

The statement further indicates that the net anticipated vehicle miles traveled (VMT) by present employees from current residences would be an estimated 1,800 vehicle miles fewer per day to the proposed Denver site than to the Lakewood site.

On pages 10 and 11 of the statement, it is pointed out that the Lakewood site, which has no Denver Metro Bus service, has been planned for Personal Rapid Transit (PRT) service. Considering that the new Mint is anticipated to be ready by 1980 and that completion of the PRT is not expected until 1982, it appears that employees could well be faced with a two year transportation void.

On the other hand the proposed Denver site is currently served by Denver Metro Buses which would be immediately convenient for employees and tourists traveling to that site.

While the Denver site has not been scheduled for direct PRT service, the Citizen Action Committees for PRT are only now in the process of determining route alignments and station locations. A station could easily be planned for the proposed Denver site if the need were indicated. This would make the Denver site even more accessible than it now is in comparison with the other proposed site.

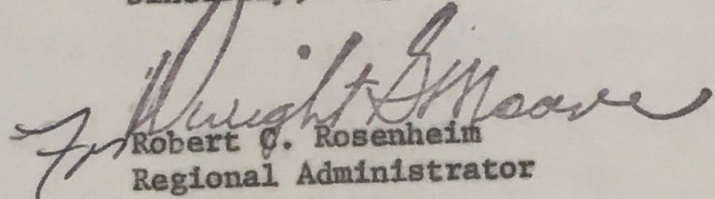
Conclusions

Relocation of the Denver Mint to either of the proposed sites would be consistent with planning for the subject areas. However, it is the position of this Department that from the standpoint of long term, areawide comprehensive planning and community development goals, the serious impacts which we have elaborated above clearly indicate that the proposed Denver site would be far superior to that of the alternate proposal.

We have enclosed a copy of the U. S. Department of Housing and Urban Development market analysis for the two sites, which was previously sent to you on April 16, 1974, in compliance with Executive Order 11512. Also enclosed are copies of letters from two Model Cities Geographic Area Committees in support of the proposed Denver site and a location map indicating the location of Federally subsidized housing and another map showing HUD sponsored renewal projects in the city and county of Denver.

We appreciate this opportunity to provide our comments pertaining to the relocation of the Denver Mint. If you have any questions regarding these remarks, or if we may be of any further assistance, please contact this office.

Sincerely,


Robert C. Rosenheim
Regional Administrator

The Department of Housing and Urban Development's comments on proposed sites for the new United States Mint are in accordance with Executive Order 11512. These comments are presented in two parts. Part one concerns the availability of low and moderate-income housing, and part two concerns the availability of housing on a nondiscriminatory basis.

Part I

Federally subsidized housing primarily serves two income groups. The low rent or rent supplement programs serve low-income households (i.e., a four-person family with gross annual income under \$7,000). The Section 236 Program serves moderate income households (i. e., a four-person family with gross annual income between \$5,000 and \$9,200). The following table shows the approximate number of these units within four miles of each site:

<u>Site</u>	<u>Low Rent</u>	<u>Section 236</u>
Park Hill	2,050	1,550
Federal Center	0	96

The Section 236 units near the Federal Center are all designed for family occupancy. Near the Park Hill site, about half of the low-rent units and 25 percent of the Section 236 units are occupied by families.

The following table shows the sales price distribution in each area for existing units available for sale in February 1974:

<u>Sales Price</u>	<u>Northeast Denver</u>	<u>Central Jefferson Co. & South Lakewood</u>
\$ 000 - \$15,000	24%	1%
\$15,000 - \$19,000	22%	1%
\$20,000 - \$24,999	23%	5%
\$25,000 - \$29,999	14%	12%
\$30,000 - \$39,999	11%	38%
\$40,000 - \$49,999	4%	25%
\$50,000 & Over	2%	18%
	100%	100%
Median	\$20,000	\$39,000

The following table shows the rental ranges of most apartments in each area:

<u>Unit Size</u>	<u>Park Hill</u>	<u>Federal Center</u>
1 Bedroom	\$120 - \$135	\$145 - \$165
2 Bedrooms	\$155 - \$185	\$170 - \$210
3 Bedrooms	NA	\$220 - \$260

It should be noted that there are few apartments in the vicinity of Park Hill. There are apartments in Commerce City and Aurora, but the rents on the units in Aurora would be similar to those in Lakewood. There are also a large number of apartments in east central Denver, and the rents in these units range from some of the least expensive to some of the most expensive in the Denver area. The apartments in Lakewood are primarily under 10 years old and are more homogenous than those accessible to Park Hill. Consequently, there are few units in Lakewood at the lower end of the above price ranges.

In general, the immediate vicinity of the Federal Center contains more available apartment units than Park Hill, but their rent is significantly higher.

The following table shows the sales price distribution for new homes completed last year in Denver and Jefferson Counties:

<u>Sales Price</u>	<u>Denver</u>	<u>Jefferson</u>
\$ 0 - \$15,000	0%	0%
\$15,000 - \$19,999	3%	2%
\$20,000 - \$24,999	71%	17%
\$25,000 - \$29,999	22%	29%
\$30,000 - \$39,999	3%	35%
\$40,000 - \$49,999	0%	14%
\$50,000 & Over	1%	3%
	100%	100%
Median	\$21,700	\$30,500

This distribution, again, shows substantially higher prices in Jefferson County than in Denver. However, there is much more activity in Jefferson County. Last year there were about 4,100 homes completed in Jefferson County and only about 400 completed in Denver.

The distribution of salaries of Mint employees indicates that 12 percent make between \$7,000 and \$9,000, and 70 percent make between \$9,000 and \$12,000. None of the employees make less than \$7,000 and only 18 percent make more than \$12,000. This indicates that none of these employees would be eligible for Federally subsidized low-rent housing, and only about 12 percent would be eligible for Section 236 units. Including this latter category, most of the employees could afford a \$15,000 to \$30,000 house or a monthly rent of \$150 to \$250. There are rental units in both areas within this

range; however, most of the units in Lakewood are in the upper portion of the range. The existing unit sales price distribution indicates that 59 percent of the units in Park Hill and 18 percent of the units in Lakewood are within the above price range.

In summary, the cost of housing in Lakewood is significantly higher than in Park Hill. Although the absolute prices and salaries will be somewhat different by the time the Mint is completed, we can expect that the relative differences will be comparable to the current situation. In general, the production levels and housing availability are greater in Lakewood. However, most of the housing is beyond the means of most Mint employees. Conversely, the availability of housing in Park Hill is more limited, but the cost of this housing is much more modest. At present, the Park Hill site would provide a much greater opportunity for moderate income employees to move close to work.

However, there remains somewhat of a paradox. One site (Park Hill) is near modest-cost housing, but little of it is available or being produced; the other site (Federal Center) is near areas of substantial housing production, but little of this is for moderate-income families. Therefore, we anticipate that the selection of either site will require the formulation of some sort of plan to assure the availability of moderate-price housing. We recommend that you contact us when construction of the Mint is underway. At that time, we will update our figures on the housing market and advise you as to what Federal and local resources might be utilized in the area to provide housing for moderate-income families.

Part II

Comments regarding availability of housing on a nondiscriminatory basis in relation to the proposed construction of the new United States Mint in either Park Hill or Lakewood:

1970 Population Statistics from the United States Census:

Denver, Colorado - Total Population	514,678
Black Population	47,011
Spanish Surnamed Population	86,345
Other Minorities	9,480
 Lakewood, Colorado Total Population	 92,787
Black Population	130
Spanish Surnamed Population	4,360
Other Minorities	670

Racial Breakdown of Employees of the U. S. Mint as of June 30, 1973:

Total Employment	461
Black Employees	45
Spanish Surnamed Employees	137
Oriental Employees	8

Since a fairly sizable number of present employees belong to minority groups, it can be presumed that a good number of minority-group families and individuals would be in the market for housing as new or present Mint employees.

In addition to the Federal Fair Housing Law, i. e., Title VIII of the 1968 Civil Rights Act, the state of Colorado also has a strong Fair Housing Law. The state law is administered by the Colorado Civil Rights Commission. At the present time most housing discrimination complaints in the state of Colorado are processed by the Colorado Commission on Civil Rights.

In the period from January 1973 to March 1974, the Colorado Commission processed 69 housing discrimination complaints in Denver and 2 complaints in Lakewood. The cases were handled as follows:

- 31 complaints in Denver were closed by conference (successfully);
- 38 complaints in Denver are under active investigation;
- 1 complaint in Lakewood was closed by conference (successfully);
- 1 complaint in Lakewood is still active.

During the same period, the Equal Opportunity Office of the Department of Housing and Urban Development processed 14 housing discrimination complaints in Denver and 4 in Lakewood. The cases were handled as follows:

- 4 complaints in Denver were closed by a determination not to resolve (insufficient evidence);
- 4 complaints in Denver were closed by successful conciliation agreements;
- 1 complaint in Denver was withdrawn by the complainant;
- 1 complaint in Denver was dismissed for lack of jurisdiction;
- 4 complaints in Denver are still active;
- 4 complaints in Lakewood - determination not to resolve (insufficient evidence).

It can be noted that the existence of a far greater number of complaints in the city of Denver, as compared to the city of Lakewood, does not necessarily indicate a lack of housing available on a nondiscriminatory basis within the city of Denver. As the general population statistics show, there are many more minority-group people residing within the city of

Denver and, therefore, seeking housing within Denver; so it is not surprising that there would be more complaints. There is a relatively small minority population in Lakewood, and there has been no real incentive for the movement of minorities to Lakewood.

It is well known that there is a shortage of both low and moderate-income housing within the Denver Metropolitan Area. This shortage is certainly present both within the city of Denver and within the city of Lakewood. Both Denver and Lakewood have been active in attempts to increase the amount of low and moderate-income housing available to citizens. For many years the city of Denver has actively participated in the programs of HUD designed to subsidize housing for low and moderate-income families. While the city of Lakewood has not participated to any significant extent in the production of subsidized housing within the city, the present posture of the city administration is in favor of increasing the amount of low and moderate-income housing in the community. There has been some citizen opposition to these efforts to increase low and moderate-income housing, but the city has been moving ahead.

Both Denver and Lakewood have officially subscribed to the Fair Share Housing Plan of Metropolitan Denver. Both cities have officially endorsed the plan and committed their respective communities to increasing the number of low and moderate-income housing units. The Regional Office of the Department of Housing and Urban Development has also endorsed the Fair Share Plan and has committed itself to take into account the requirements of the Fair Share Plan in the allocation of whatever subsidized units become available to the Region.

Housing marketed through the Federal Housing Administration of HUD is also bound to the requirements of HUD's Affirmative Fair Housing Marketing Program. This means that builders and developers who are seeking FHA insurance or subsidies must agree in a formal written plan to market their housing in such a way that the availability of this housing is made to be known to all members of the community and especially to those groups, generally minority groups, who would ordinarily not be attracted to the housing because it was not in an area where they traditionally lived. This Affirmative Fair Housing Marketing can be a significant tool in assisting minority-group families and individuals to find housing.

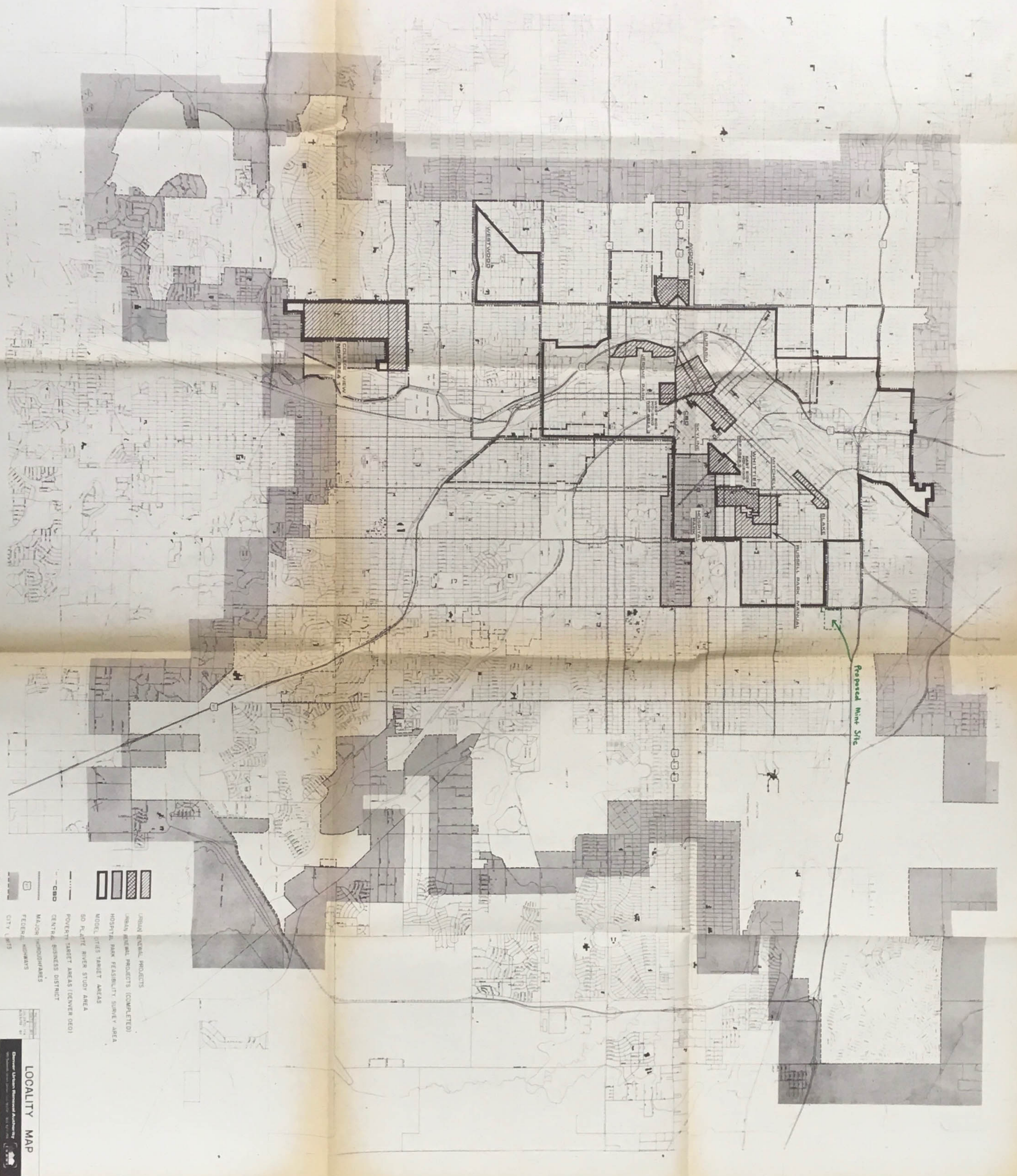
The Federal Housing Administration of HUD, together with the Home Builders in Metropolitan Denver, are working on a voluntary area-wide Affirmative Marketing Plan which would include not only housing insured or subsidized by the Federal Government, but also conventionally financed housing. This agreement would apply to subsidized, Federally insured and conventionally

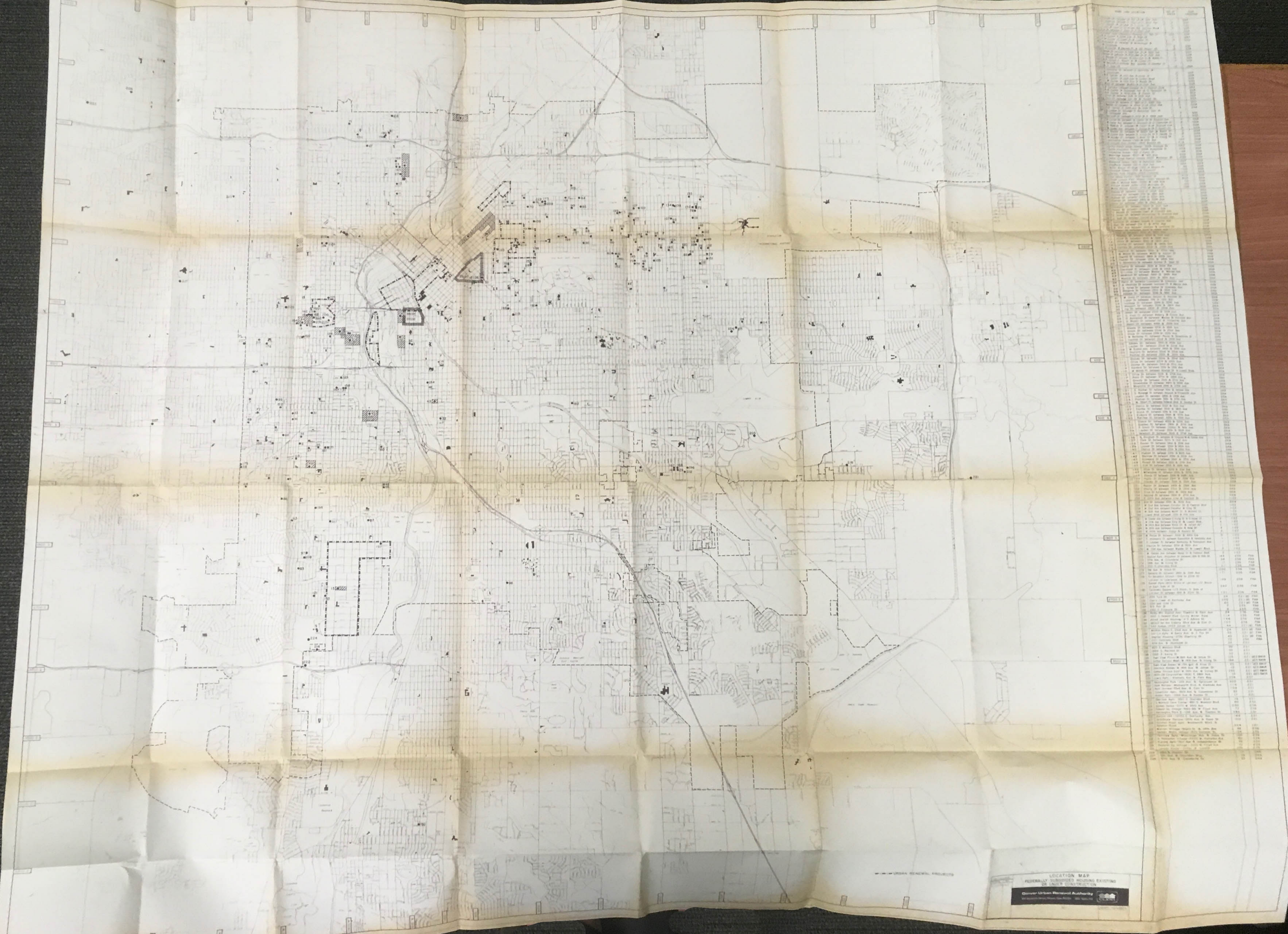
financed housing. Thus, we can anticipate that most new housing in the Denver area would be marketed on the basis of an Affirmative Fair Housing Marketing Program specifically designed to open all housing to all segments of the community and especially to assure minority-group home seekers that housing is available to them.

It seems that if there are significant barriers for minority-group people seeking housing either within Denver or Lakewood, these barriers relate more to the availability of housing within the income limits of the home seeker rather than the barrier of discriminatory housing practices. While the minority-group home seeker might encounter discrimination either within the city of Denver or the city of Lakewood, it seems that this discrimination would be more of an isolated instance rather than a significant organized barrier. Both the city of Lakewood and the city of Denver have taken stands in support of increased numbers of moderate income housing units and stands in favor of equal rights for all citizens. The Denver Home Builders Association through its commitment to the principles of Affirmative Fair Housing Marketing also supports a program of marketing housing on an equal opportunity basis.

The Regional Office of the Department of Housing and Urban Development will be pleased to work with the Bureau of the Mint and the officials of the city in which the new facility will be located to increase the amount of moderate-income housing available in the area.

- URBAN RENEWAL PROJECTS
- URBAN RENEWAL PROJECTS (COMPLETED)
- HOSPITAL PARK FEASIBILITY STUDY AREA
- MODEL STUDY TARGET AREAS
- SO PLATE RIVER STUDY AREA
- POVERTY TARGET AREAS (DENVER OEO)
- CENTRAL BUSINESS DISTRICT
- MAJOR INFRASTRUCTURE
- FEDERAL HIGHWAYS
- CITY LIMITS
- FACE AREAS





Map of the City of [City Name] showing the location of various landmarks and buildings. The map is oriented with North at the top. The city is divided into several blocks, with a grid system visible. The map is surrounded by a border with small rectangular markers. The map is printed on a light-colored paper with some creases and discoloration.

Block	Building Name	Address	Notes
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United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

IN REPLY REFER TO:

ER-74/342

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

APR 16 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in response to Mr. Warren F. Brecht's letter of March 6, 1974, requesting the Department of the Interior's comments on the revised draft environmental statement for the proposed construction of the new United States Mint in Denver, Colorado.

General Comments

The revised draft statement is generally adequate and covers several of the environmental concerns of this Department. However, there are a few areas where additional information and clarification are needed to strengthen the revised draft.

Specific Comments

1. Description of the Proposed Action

The revised statement provides little information on the geology and hydrology of the proposed site locations. Environmental problems that may result from local geologic and hydrologic conditions should be recognizable from preconstruction investigations and be within the range of accepted engineering practice.

There should be evidence in the revised statement of consultation with the National Register of Historic Places, and discuss whether any National Register properties will be affected. If the project has an effect on a National Register listing, the statement should reflect further compliance with Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665).

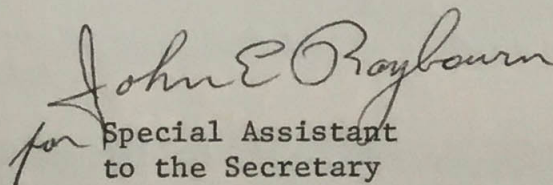
In addition, the revised statement does not clearly confirm consultation with the State Historic Preservation Officer for Colorado. The final environmental statement should reflect that he was consulted to determine whether the proposal will affect any cultural site which may be in the process of nomination to the National Register of Historic Places and contain a copy of his response.

We believe that the previously proposed site for the new mint on the west bank of the South Platte River should not be completely ruled out. The reasoning behind this action (page 3) is subjective. For example, the explanation that the environmental condition of the mint as a tourist attraction at this site would be "incompatible" or "out of harmony" is questionable. A more detailed environmental analysis of this site than what is presented in the statement appears to be in order. And, as for "heavy train traffic" in that area, this situation would also prevail at the Denver Federal Center site, should that site be selected. (Trains servicing the proposed new mint at the Federal Center would cause motor vehicular delays at the Sixth Avenue grade crossing. Furthermore, vehicular traffic in the area adjacent to the northwestern section of the Federal Center is already quite congested, particularly during the morning and afternoon rush hours.)

It is apparent that air pollution will be a major problem no matter what site is selected. This adverse impact should be discussed in detail for each proposed site and compared to existing air quality at each site.

Mitigating measures are suggested (page 4) for replacing the eight golf holes at the Park Hill Golf Course, should that site be selected. However, specific plans for the replacement should be included in the final statement.

Sincerely,


for Special Assistant
to the Secretary



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION EIGHT
BUILDING 40, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

May 6, 1974

IN REPLY REFER TO:

08-00.21

Mr. Frank W. Rhea
Facilities Project Manager
Bureau of the Mint
Department of the Treasury
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

We appreciate the opportunity to review the Draft Environmental Impact Statement on the Construction of New United States Mint, Denver, Colorado. We are especially interested in the impacts of the proposal on the existing highway and street system and projected private motor vehicle and public transportation use.

The assessment of existing conditions and impacts on traffic generation and movement are described very well. Probable effects of motor vehicle emissions on air quality have been factually stated. We concur that adequate transportation facilities exist to service either possible site.

Sincerely,

W. H. Baugh
Regional Federal Highway
Administrator

F. S. Allison

By: Frank S. Allison, Director
Office of Environment & Design

**Advisory Council
On Historic Preservation**

1522 K Street N.W. Suite 430
Washington D.C. 20005

April 29, 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
U.S. Department of the Treasury
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

This is in response to your request of March 6, 1974, for comments on the environmental statement for the proposed new Denver Mint, Denver, Colorado. Pursuant to its responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that while you have discussed the historical, architectural, and archeological aspects related to the undertaking, the Advisory Council needs additional information to adequately evaluate the effects on these cultural resources. Please furnish additional data indicating:

- a. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470(f)). The Council must have evidence that the most recent listing of the National Register of Historic Places has been consulted (see Federal Register, February 19, 1974, and monthly supplements each first Tuesday thereafter) and that either of the following conditions is satisfied:
 1. If no National Register property is affected by the project, a section detailing this determination must appear in the environmental statement.
 2. If a National Register property is affected by the project, the environmental statement must contain an account of steps taken in compliance with Section 106 and a comprehensive discussion of the contemplated effects on the National Register property. ("Procedures for the Protection of Historic and Cultural Properties" are detailed in the Federal Register of January 25, 1974, pp. 3366-3370).
- b. Compliance with Executive Order 11593 of May 13, 1971.
 1. In the case of land under the control or jurisdiction of the Federal Government, a statement should be made

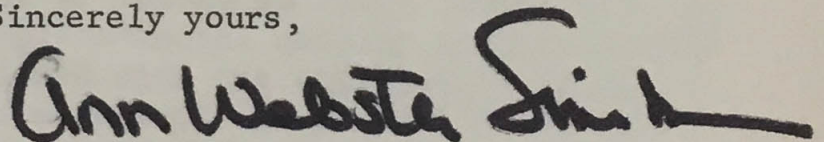
as to whether or not the proposed undertaking will result in the transfer, sale, demolition, or substantial alteration of potential National Register properties. If such is the case, the nature of the effect should be clearly indicated.

2. In the case of lands not under the control or jurisdiction of the Federal Government, a statement should be made as to whether or not the proposed undertaking will contribute to the preservation and enhancement of non-federally owned districts, sites, buildings, structures, and objects of historical, archeological, architectural, or cultural significance.

To insure a comprehensive review of historical, cultural, archeological, and architectural resources, the Advisory Council suggests that the environmental statement contain evidence of contact with the appropriate State Historic Preservation Officer and that a copy of his comments concerning the effects of the undertaking upon these resources be included in the environmental statement. The State Historic Preservation Officer for Colorado is Mr. Stephen H. Hart, 500 Equitable Building, 730 17th Street, Denver, Colorado 80202.

Should you have any questions or require any additional assistance, please contact Jordan Tannenbaum (202-254-3974) of the Advisory Council staff.

Sincerely yours,

A handwritten signature in dark ink, reading "Ann Webster Smith". The signature is fluid and cursive, with a long horizontal stroke at the end.

Ann Webster Smith
Director, Office of Compliance

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION

Region 8
Denver Federal Center
Denver, CO 80225



APR 24 1974

Mr. Frank Rhea
Facilities Project Manager
U. S. Mint
320 West Colfax Avenue
Denver, CO 80204

Dear Frank:

Thank you for the opportunity to comment on your February 24, 1974, Draft Environmental Impact Statement in which the Park Hill Golf Course and Denver Federal Center sites are discussed.

The Draft appears to be a factual statement which adequately covers the subject matters to be considered in the selection of a site for a major facility such as the new Denver Mint.

It is this agency's opinion that either of the two sites under consideration would make an excellent site for the new Mint.

As the agency with the contracting authority for the design and construction of a new Mint, I would like to take this opportunity to assure all interested parties that we intend to fully comply with all Federal and State clean air and environmental quality anti-pollution standards. This will be accomplished with the utilization of the most modern and efficient pollution control and prevention systems available for the production process and the support facilities.

Energy conservation is, and will continue to be, of prime consideration in all our projects, including the new Denver Mint. GSA has recently published a document entitled, "Energy Conservation Design Guidelines for Office Buildings" which will serve as a valuable guide to the design Architect-Engineer for the new Mint.

The primary source of fuel at the Denver Federal Center central steam plant is natural gas with No. 2 fuel oil and coal being used as standby fuels. Due to the energy shortage experienced in early 1973, GSA converted both of the existing convertible boilers to facilitate the burning of coal. The third existing boiler cannot be converted to coal use. Subsequent to the conversion of the boilers to permit the use of coal, they were tested by the Air Pollution Control Division of the Colorado Department of Health and found to be in compliance with Federal and State emission standards while using coal as a source of fuel. While burning natural gas or fuel oil, we were in compliance

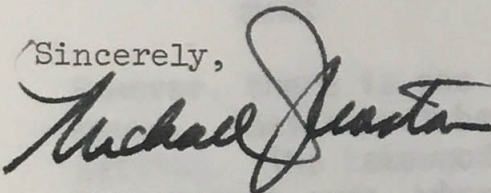
with Federal and State clean air standards. We have discontinued the use of coal as a standby fuel at the Denver Federal Center until necessary equipment changes are made which will insure compliance with emission standards.

To correct the present emission problem and to insure that proper consideration is given to our immediate and long range energy conservation efforts, we have contracted with a consulting firm to conduct a detailed engineering feasibility study including the pre-engineering design of necessary corrective measures to assure compliance with Federal and State emission standards. The study will be complete in about 90 days at which time we will evaluate our entire problem from the fuel availability, energy consumption and emission control standpoints. Present and estimated future requirements of the Denver Federal Center, including possible new Mint requirements, are being considered in this study.

The existing boiler capacity at the Denver Federal Center is adequate to handle the estimated load of the new Mint. The present emission problem will be corrected far in advance of the new Mint coming to the Denver Federal Center, should the DFC site be selected.

I trust these comments and those received from other interested parties will permit an early site selection so that this project may proceed without further delay.

Sincerely,



MICHAEL J. NORTON
Regional Administrator

OFFICE OF ECONOMIC OPPORTUNITY

EXECUTIVE OFFICE OF THE PRESIDENT
Region VIII
Federal Bldg., 1961 Stout St.
Denver, Colorado 80202

IN REPLY REFER TO:

MAR 20 1974

• Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint - 320 W. Colfax
Denver, Colorado 80204

Dear Mr. Rhea:

It appears that the two proposed sites, the Park Hill Golf Course area and the Federal Center site are for the most part equal in terms of:

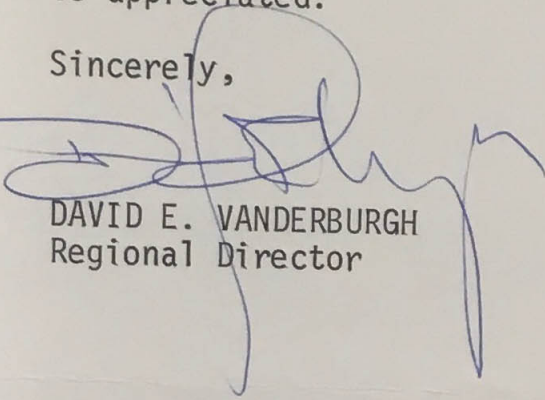
1. Physical site capability
2. Accessibility to rail transportation for mint operations
3. Private and mass transit facilities for employees and tourists
4. Probable adverse effects to the environment

However, there is one aspect in which the two sites are not equal. That aspect being the social, economic and cultural setting. The Lakewood site is in a prosperous and fairly homogeneous area, whereas the Park Hill area represents the opposite. Therefore, it seems that the Park Hill area would be the better site location in regard to social, economic and cultural benefits. If the Park Hill area was selected, it would be more beneficial in terms of greater employment, alleviation of poverty, and an increase in property values. Since Park Hill represents a greater need, it is recommended that this site be chosen for the Denver Mint.

Another factor that should be addressed is that of citizen participation. My understanding is that no public hearings or forums per se have been conducted to date. The only citizen input has been by interest groups in the two areas. It is therefore recommended that public forums be held in both the Park Hill and Lakewood areas to provide citizen input and to

determine if they (the citizens) want the mint in their area.
Your interest in The Office of Economic Opportunity's input
is appreciated.

Sincerely,



DAVID E. VANDERBURGH
Regional Director



COLORADO DEPARTMENT OF HEALTH

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

Edward G. Dreyfus, M.D., M.P.H. Executive Director

April 18, 1974

Mr. Frank Rhea
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

A review of the New United States Mint Draft Revised Environmental Impact Statement has been completed by the Air Pollution Control Division of this Department. The Impact Statement discusses two proposed sites, the NW corner of the Park Hill Golf Course and the NW corner of the Denver Federal Center.

The air quality data supplied in the Impact Statement presented, for 1970, an annual geometric mean for suspended particulate matter of 60.3 ug/m^3 (micrograms per cubic meter) for the Lakewood site (see Attachment A). The station is approximately one mile east of the Denver Federal Center proposed mint site. However, the sentence on page 14 of the Statement, "The School Administration Building Stations is representative of air quality conditions at the proposed Park Hill Site" is not correct. A much closer station is the Hull Photo site at 5105 East 38th Avenue. This station is approximately one mile from the proposed Park Hill Mint site. The annual geometric mean, for 1970, of suspended particulate matter from the Hull Photo station was 79.6 ug/m^3 . If the 1972 recorded and 1973 projected levels of suspended particulate matter are considered (see Attachment B), there is not much difference between the two sites; therefore we feel both sites are about comparable considering only this one pollutant. However, the major automobile-caused pollutants (i.e., carbon monoxide and photochemical oxidants) presently exceed Federal ambient air quality standards on numerous occasions over large portions of the Denver area. With limited air quality data for these pollutants at the two proposed mint sites, pollutant problems can be reduced by locating the mint where vehicle traffic can be minimized.

The Impact Statement devotes several pages to the volume and impact of the induced vehicle miles traveled (VMT) of either site. Based on projections of 1973 vehicle usage at the existing Denver Mint, the Park Hill site should generate 1800 VMT less daily net average than the Denver Federal Center site. On the other hand, the average daily traffic (ADT) counts of the roadways adjacent to both sites indicate 7600 less vehicles at the Denver Federal Center site.

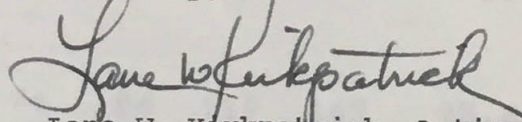
The Department has great concern for the Park Hill area, because it falls within the boundary established by both the Department of Health and the Environmental Protection Agency to demonstrate the adequacy of transportation control strategies to attain and maintain the National Ambient Air Quality Standard for hydrocarbons by mid-1977. To reach that standard at the Park Hill site, there must be a reduction in vehicle miles traveled (VMT) in the described area (see Attachment C). No new source of generated VMT could be tolerated within the area without a corresponding reduction of VMT from another source, or unless motor vehicle emission control technology is improved beyond that presently considered possible.

The final point to be made is the availability of public transportation to both sites in 1980 and thereafter. The Regional Transportation District has proposed the NW corner of the Denver Federal Center as a terminus for the rapid transit system (completion date, 1984). The terminus is to be virtually adjacent to the proposed Mint site. The Park Hill site, on the other hand, would be served by bus, with the closest transfer point about two miles from the rapid transit network.

The analysis of existing air quality, meteorological conditions, and the impact of vehicle usage and pollutants generated by the two sites upon the projected ambient air, supports the conclusions stated on page 15 of the Statement, "...it is considered that the net adverse impact on air quality would be less with the new Mint located at the Federal Center."

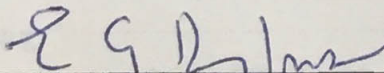
This is the only official statement to date from the Department of Health regarding the air quality impact of the relocation of the Denver Mint.

Sincerely,



Lane W. Kirkpatrick, Acting Director
Air Pollution Control Division

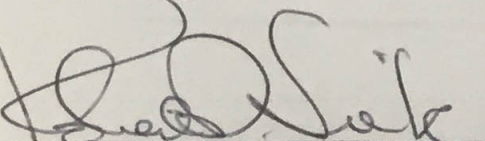
Reviewed by:



Edward G. Dreyfus, M.D., M.P.H.
Executive Director
Colorado Department of Health

Date April 19, 1974

Reviewed by:



Robert D. Siek, M.P.H.
Coordinator, Environmental Programs

Date April 15, 1974

COLORADO DEPARTMENT OF HEALTH

AIR POLLUTION CONTROL DIVISION

STATISTICAL ANALYSIS OF AMBIENT AIR QUALITY DATA

POLLUTANT: SUSPENDED PARTICULATES

UNIT: MICROGRAMS PER CUBIC METER

YEAR: 1970

METRO DENVER REGION

STATION TOTALS FOR REGION 2

STATION	QTR	NUM SMP	ARIT MEAN	MIN/MAX	10	LOG-N 30	DIST.-N 50	70	90	GEO MEAN	STD DEV
126001											
LAKEWOOD	1	24	80	30/211	37	55	71	92	135	71.0	1.65
	2	27	67	15/149	31	45	59	78	115	59.3	1.68
	3	24	55	21/168	25	37	48	63	92	48.4	1.66
	4	20	70	30/109	41	54	66	80	105	65.8	1.44
TOTAL		95	68	15/211	32	47	60	78	114	60.3	1.64
58006											
HULL PHOTO	1	25	103	26/213	52	74	94	119	169	93.8	1.58
	2	25	79	34/166	47	62	74	90	118	74.4	1.44
	3	24	77	23/187	40	56	70	88	123	70.0	1.55
	4	20	91	32/175	45	64	82	105	150	82.3	1.60
TOTAL		94	87	23/213	45	63	80	100	140	79.6	1.55
58001											
SCHOOL AD. BLDG.	1	23	149	74/255	91	118	141	169	219	141.2	1.41
	2	24	100	66/181	66	82	96	112	141	96.0	1.35
	3	23	98	40/109	56	75	92	112	150	91.7	1.47
	4	20	122	43/229	62	88	112	142	201	111.9	1.58
TOTAL		90	117	40/255	65	88	108	134	181	108.3	1.50

DESCRIPTION OF TRANSPORTATION
AND LAND USE CONTROL PLAN
DEMONSTRATION AREAS

Carbon monoxide:

An area bounded by Larimer Street on the northwest, 20th Street and 20th Avenue on the north, Logan Street on the East, 13th on the south, and Speer Boulevard on the west.

Hydrocarbons:

An area bounded by the corner of West 6th Avenue and Federal Boulevard, north to the intersection of West 29th Avenue, then east on West 29th Avenue to the intersection of Zuni Street, then north to the intersection of West 38th Avenue, then east to Interstate 25, then north to the intersection of Interstate 70, then east to the intersection of Holly Street, then south to the intersection of East 38th Avenue, then west to the intersection of Colorado Boulevard, then south to the intersection of East 29th Avenue, then west to the intersection of York Street, then south to the intersection of East 6th Avenue, then west to Federal Boulevard.

ATTACHMENT C

SUMMARY OF SUSPENDED PARTICULATE DATA

	Annual	Geometric	Mean (ug/m ³)	
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Lakewood	60.3	71.0	71.0	72.0*
Hull Photo	79.6	84.0	74.0	78.0*

* projected

STATE DEPARTMENT OF HIGHWAYS

CHAS. E. SHUMATE

EXECUTIVE DIRECTOR

DIVISION OF HIGHWAYS
E. N. HAASE
CHIEF ENGINEER

STATE OF COLORADO



DISTRICT 6
R. E. HEATHCOTE
DISTRICT ENGINEER

2000 SOUTH HOLLY • DENVER, COLORADO 80222 • (303) 757-9252

Environmental Review

Ref. 06-00

March 29, 1974

Mr. Frank W. Rhea
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for allowing the Department of Highways to review the Draft Revised Environmental Impact Statement for the new Denver Mint.

In reviewing the Statement, a major question is raised regarding transportation to and from the proposed Site B - Denver Federal Center. As mentioned in the Environmental Impact Statement, the rail spur serving the Denver Federal Center from the north would be desirable for the shipment and delivery of metals. However, since this spur crosses U. S. Highway 6 (Sixth Avenue Freeway) at a grade crossing, we feel that a study should be made to determine to what extent rail traffic will be increased on this line, and what effect it will have on vehicular traffic on the Freeway.

Please keep the Department of Highways informed of the progress of the Environmental Impact Statement on the proposed Mint so that we might coordinate activities.

Very truly yours,

R. E. HEATHCOTE
District Engineer

By

A handwritten signature in blue ink that reads "Ken Francis".

Ken Francis
District Environmental Manager

KCF:fk

cc: R. E. Heathcote
ERA File
File (Francis)

F-42

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

Office of the State Archaeologist
Ketchum 5A
University of Colorado
Boulder, Colorado 80302
April 18, 1974

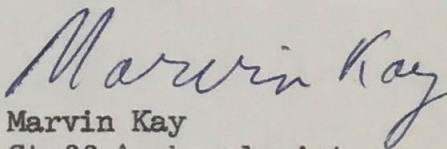
Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Cynthia Emrick sent a copy of the draft environmental impact statement concerning the new Denver Mint. I have read the draft and I feel no adverse effects to archaeological resources would occur at either of the two proposed sites for the new mint. Should archaeological remains be encountered during construction, this office should be immediately notified along with appropriate Federal agencies for their proper documentation and salvage.

Should this office have additional information pertaining to archaeological remains at the two alternate mint sites, we shall forward this data with our recommendations.

Sincerely,


Marvin Kay
Staff Archaeologist

cc: Cynthia Emrick

mt

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

April 3, 1974

Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

I have consulted the State Inventory of Historic Sites as well as the Denver Landmark Commission Inventory and there are no historic sites that would be affected in either location for the new mint. Therefore, we would have no objection to the project from this standpoint. I am forwarding the report to the State Archaeologist, Dr. Hester, who must do the required commenting and review of the archaeological resources that may or may not be concerned.

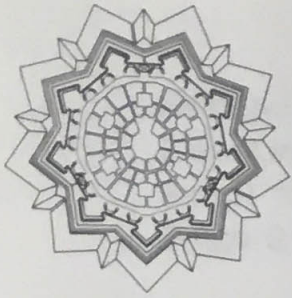
I would remind you that the old Mint is a National Register site. It is also a part of the newly designated Civic Center Denver Landmark Commission. I am sure that plans for the old building will be cognizant of these distinctions and will be respectful of them. I would hope that any plans to be made would be presented before the Denver Landmark Commission and ourselves for comment.

Sincerely,

Cynthia Enrick

Cynthia Enrick
Preservation Assistant

cc: Dr. Hester



Colorado
Division of Planning

John D. Vanderhoof / Governor

1575 Sherman Street / Denver, Colorado / 80203

Department of Local Affairs

Philip H. Schmuck / Director

Phone / (303) 892-2178

April 18, 1974

Mr. Frank W. Rhea
Facilities Project Manager, Denver Mint
Bureau of the Mint
320 West Colfax Avenue
Denver, Colorado 80204

SUBJECT: Draft Revised Environmental Impact Statement
Construction of New United States Mint,
Denver, Colorado

Dear Mr. Rhea:

The Division of Planning, as Colorado State Clearinghouse, has reviewed the Draft Revised Environmental Impact Statement (DES) for the new Mint. On the whole, the DES satisfactorily analyzes the potential impacts of locating the new Mint at either of the two proposed sites. The following items, however, should be addressed and assessed in the final environmental impact statement.

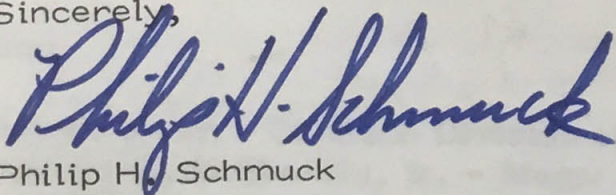
1. Although the DES analyzes the impacts of the proposed action on traffic generation, air pollution, housing demand, etc., a more thorough analysis of the impacts on the living environment of the immediate neighborhoods of the two proposed locations, particularly the Park Hill residential area, is needed. The effect of the proposed action on residential property values, future land use, and neighborhood stability are some of the important impacts that are not discussed.
2. In the discussion of the Federal Center site, the DES ignores the impact of higher utilization of the at-grade railroad crossing on the 6th Avenue freeway.
3. The analysis of alternatives to the proposed action should be expanded in the final environmental impact statement to include the following:

Bureau of the Mint
New United States Mint DES
April 18, 1974
Page 2

- a. Continuing use of the existing Mint and housing support facilities and personnel in another building rather than constructing a new Mint that would house all facilities and personnel in one structure. For example, administrative personnel, shipping and distribution facilities could be housed in an "annex" located near the existing Mint. Although this alternative would have adverse impacts, e.g., transportation and travel between the two facilities, it may result in less total adverse impact than relocation of the Mint to either of the sites proposed in the DES.
 - b. Reconsideration of the South Platte River site in view of recent efforts by certain members of the Colorado Legislature to dissuade the Burlington Northern Railroad from constructing new double tracks along the west bank of the River. Even if the double tracks were constructed, could not the adverse noise and unsightly view be screened through appropriate landscaping and architectural design?
4. The impacts of abandoning the existing Mint could be more thoroughly assessed. Although there will certainly be positive impacts, such as less congestion, the negative impact on the cohesiveness of the Denver Civic Center if the Mint becomes just another public office building cannot be ignored. More discussion and thought should be devoted to the eventual use of the existing Mint.

The Colorado State Clearinghouse appreciates this opportunity to review the DES for this very important matter. Please do not hesitate to call if you have any questions or if the Division of Planning can be of any assistance.

Sincerely,



Philip H. Schmuck
Director

PHS/JO/vt

cc: Hugh H. C. Weed, Jr., Executive Director, Dept. of Local Affairs
John Bermingham, Assistant to the Governor on Environmental
Affairs and State Planning
Robert D. Farley, Executive Director, Denver Regional Council
of Governments



DENVER REGIONAL COUNCIL OF GOVERNMENTS

1776 SOUTH JACKSON STREET • DENVER, COLORADO 80210 • 758-5166

April 24, 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

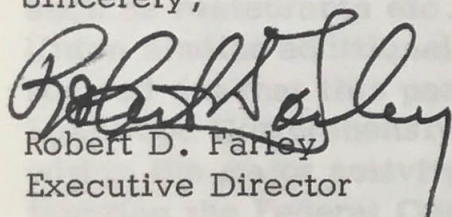
Subject: EI/001-74, Draft Environmental Statement for new Denver Mint

Dear Sir:

Reference is made to your letter and enclosure of March 6, 1974 concerning review of the Draft Environmental Impact Statement for the new Denver Mint in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (Public Law 01-100). In response to your communication, the Council has reviewed the Statement as it relates to the Council of Governments' concern with areawide planning and development.

The Council of Governments appreciates this opportunity to be of service to your agency.

Sincerely,


Robert D. Farley
Executive Director

RDF/nl

Enclosure

cc: Richard Brown - Colorado Division of Planning
William H. McNichols, Jr. - Mayor of Denver
Don DeDecker - Lakewood COG Representative
Gary Latham - Lakewood Director of Community Development
Alan Canter - Denver Planning Office Director

F-45

COUNCIL OFFICERS

NORMAN A. SMITH, Chairman SAMUEL L. JENKINS, Vice Chairman GUY R. SANDERS, Secretary-Treasurer ROBERT D. FARLEY, Executive Director

EXECUTIVE COMMITTEE

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Boulder County Commissioner Jefferson County Commissioner Denver Mayor Arapahoe County Commissioner Adams County Commissioner
*Chairman **Vice-Chairman

Excerpts from the April 5, 1974 DRCOG Regional Planning Advisory Committee Meeting:
Mr. Bigenwald, DRCOG staff reviewed the status of the EIS. At that time, it was the Committee's wish that the whole Committee should have the opportunity to review the statement.

Gary Latham, Lakewood, outlined the Lakewood staff position relative to the new U.S. Mint. The Lakewood City Council has held a public hearing relative to citizen input. A study session was also held to evaluate citizen input as well as staff comments.

Lakewood City staff commented on a number of points with regard to the Federal Center site. Mr. Latham said that there have been several mis-statements made by other agencies relative to the site. His staff identified information that could satisfy those concerns. The Federal Center site does have existing rail access which was one of the concerns in terms of bringing in supplies. Another concern expressed was relative to the traffic patterns in the area. He reviewed for the Committee plans concerning that particular area relative to the Simms-Union interchange. He pointed out that the the Colorado Division of Highways is modifying that interchange. Concern was expressed that Simms and Union themselves would not be sufficient to carry the volume of traffic being generated because of its two lane configuration. A portion of that is already under construction for six lanes.

It was also pointed out that RTD has discussed this particular area as a PRT stop which would make the facility immediately adjacent to the Mint site. Connected with that would be some tourist facilities, including small convenience shops such as restaurants etc... between the Federal Center site and Union. Across Union similar additional facilities would also be provided. Mr. Latham further pointed out that this particular proposal is in conformance with both the proposed Lakewood Comprehensive Plan and with the DRCOG Regional Plan in that it is within the major activity center located in that area. Lakewood will go on record favoring the Federal Center Site, but included within their recommendations is a request that the particular areas of concern expressed by the City of Lakewood be forwarded to the Treasury Department. Specifically the City requests that their concerns be taken into account as further impact analysis is conducted and that specific funds be allocated to the amelioration of the City's concerns, particularly during the Construction phase of the project.

Copies of an analysis by the Denver Planning Office staff review on the Draft Environmental Impact Statement of the Denver Mint were distributed to those in attendance. (A copy of this analysis is attached to and made a part of the file copy of these minutes.) Wayland Walker, of the Denver Planning Office, displayed a map and explained the environmental analysis conducted by the Denver Planning Office on the comparison of vehicle miles that would have to be travelled to each of the two proposed sites from the place of residence of the employees currently working at the Mint. Mr. Walker pointed out that vehicle miles and hence air pollutants would increase if the Lakewood site were chosen for the new Mint.

Duane Tinsley, Thornton, expressed a concern over the VMT analysis presented at this meeting, and as presented in the report. He questioned what the relationship of the additional 400 employees would be. He also said that tourist miles would likely increase at the Lakewood site.

Mr. Latham noted that in reviewing the impact statement one finds that in terms of all the areas analyzed, the difference in the actual impact is very minimal. Perhaps the VMT analysis showed the greatest variance.

Other factors should be considered: One is the Public Transportation Plan in terms of where the PRT line has been located. Secondly, in terms of the general traffic movement, the difference between the two sites may not be directly related to differences in air pollution. In other words the VMT is only directly related if the vehicles move at the same speed. The slower speeds likely at the Park Hill site might actually cause more pollution. The difference in how the cars move have a great bearing on how much pollutant is established. Thirdly, as far as new employees, he said the site that is eventually chosen for the Mint will have a great deal to do with where employees will live. Fourth, through many discussions, Lakewood has had, they have heard the concern expressed that the suburbs are not necessarily carrying their share of housing relative to lower and moderate income persons. Through the review of this proposal and of the persons who work at the Mint now, a goodly number of those people fall into the moderate category. Lakewood has adopted the allocations made by COG as being Lakewood's goals. Lakewood is in a position of finalizing programs to be able to handle this type of income level. To that degree the location of the Mint might provide an opportunity to both employment and housing.

Mr. Walker said that in the written comments of the Denver Planning Office they have gone into detail on several of the different areas such as housing and have listed its concerns in many of these social areas.

Ken Dell, RPAC Chairman, said that the main purpose of this review is to review the environmental impact statement on the Mint and not to make a decision as to the location of the facility and requested that comments be confined specifically to the impact statement.

Gordon Appell, DPO, said that the Denver analysis concluded that the impact statement was deficient on the analysis of social and economic conditions. From the standpoint of housing and schools, the impact statement could be strengthened to show that housing for low and moderate income individuals is provided in the City of Denver.

Mr. Tinsley, Thornton, said that in addition to the level of detail in social and economic considerations, the statement is meager on the detail provided concerning the transportation impact on the individual facilities. The report did a good job of analysis on the systems level, but did not consider in enough detail the impact it would have on arterials and intersections.

Mr. Frank Rhea, Project Manager for the Department of Treasury, was present to answer any questions. He said that part of the problem in trying to analyze the impact on the transportation system is trying to predict how people are going to get to work in 1980. Design of the Mint has not proceeded because it depends on the site that is chosen. The actual process used in the forging of the various coins is also tied up because of proposed legislation to change the penny to aluminum, which is affecting strip production. He said that in actuality, the Mint feels there will be only a very small additional traffic load, because of the different work shifts, employees will be coming to work at different times during the day.

DRCOG Staff Comments: The Council of Governments staff has reviewed the Draft Environmental Impact Statement prepared by the Bureau of the Mint, Department of the Treasury, regarding the Construction of New United States Mint, Denver, Colorado. The Draft Statement considers the impact of two alternative sites (1) the northwest corner of the Park Hill Golf Course in Denver and (2) the northwest corner of the Denver Federal Center in Lakewood. The Mint would consist of 700,000 square feet of gross building space and auxiliary service area totaling 30 acres.

In general, the impact statement has covered most of the salient points regarding the environmental impact of the two sites. However, there appears to be a lack of discussion concerning the social impact of the location of the facility on either of the sites. Analysis is undertaken concerning how the alternative sites might effect the relocation of employee housing over time; however, the actual impact of the facility on the social and economic structure of the surrounding community was not addressed in detail.

There is also some question as to the comparative VMT estimates for the alternative sites. The analysis of the "center of gravity chosen, are two questions that could be asked. Results of the 1971 JRPP origin and destination study suggest the average work trip length for the region was about seven miles. One could argue that over time the average employee trip would not be based on a center of gravity concept but would approach the regional average of seven miles, hence, the VMT for both sites may actually be 6,300 Vehicle Miles of Travel. (7 miles X 900 trips). (April 12, 1974)

It was moved by Mr. Appell, Denver, that the RPAC accept the staff comments with the addition of the comments reflected in the minutes that have been made at the meeting both -- written and oral. The motion was seconded by Gary Latham and passed unanimously. (April 12, 1974).

Regional Transportation District

56 Steele Street
Denver, Colorado 80206
303/399-8140



April 24, 1974

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea,

Reference is made to Department of the Treasury's letter, dated March 6, 1974, requesting a review of the Draft Revised Environmental Impact Statement for the proposed new Denver Mint. The Regional Transportation District has reviewed this document and had made the following finding:

The transit implications for the two sites are different with respect to short-term and long-term public transportation plans.

The short-term public transportation plan, the Early Action Program, involves improvements to bus service for the District. The Park Hill site is currently served by existing bus service. Route 15, which serves the Park Hill site directly, is a scheduled North-South service on Colorado Boulevard interconnecting with scheduled East-West routes - 64, 28, 40, 14, 13, and 6 within a distance of about three miles. These routes service Denver's Central Business District and points east and northwest. Additionally, regional service between Boulder and the C.U. Medical Center may include a stop for the Park Hill site on its existing route. Under the Early Action Program, bus frequencies on each of the local routes will be increased. Bus frequencies for Route 15 will be improved to one bus every fifteen minutes. With increased frequencies on the interconnecting bus routes, as well, the Park Hill site will be readily accessible by transit for employees and tourists.

The Federal Center Mint site at 6th and Union is not currently served directly on a regularly scheduled basis by existing transit operations. Routes 16 and 59 serve the Federal Center directly but only for commuter service in the morning and evening. Route 16 is a North-South service on Kipling Street. Route 59 connects the Federal Center with Denver's Central Business District. Route 75 operates regularly between the West Lakewood area and Denver's Central Business District, but the west end of the line is Alameda and Garrison, approximately 1.5 miles southeast measured on a straight line from the Federal Center site.

Under the Early Action Program, Route 16 will be converted into a regularly scheduled North-South service on Kipling with thirty minute bus frequencies. As a scheduled service, Route 16 will interconnect with another East-West service, Route 84, which will operate between Golden and Denver's Central Business District also on a thirty minute frequency. Route 59 will be improved by the addition of two more bus trips in the morning and evening but it will remain a commuter service. Route 75 will be extended to the west under the Early Action Program to Alameda and Ohio resulting in a Federal Center bus stop at Alameda and Union Street. As a result of the Early Action Program, the transit accessibility of the Federal Center Mint site for employees and tourists will be improved. Route extensions and modification of bus service to serve the Federal Center Mint site are possible under the Early Action Bus Program.

The timing for the short-term transportation plan calls for the implementation of improved bus service in 1975. Because of the flexibility of bus routes and bus operations, bus service may be changed under the Early Action Program to accommodate the transit needs of either Mint location. Future improvements beyond the Early Action Program to bus operations will be accomplished in accordance with the Transit Development Plan, a five-year management and improvement plan.

The long-term public transportation plan involves the implementation of a personalized system of rapid transit on fixed guideways with a variety of levels and types of bus service to support the rapid transit system. This Personal Rapid Transit (PRT) system includes approximately 58 stations and 100 miles of guideway throughout the Regional Transportation District.

With regard to PRT service, the Park Hill site will not be directly served. The closest PRT station location to the Park Hill site will be in the vicinity of East Colfax and Colorado Boulevard, a distance of approximately 2.5 miles. The transit link between the Park Hill site and the station will be accomplished by local bus service circulating within this area. The level of bus service and frequencies in this general Northeast Denver area has not yet been determined but a high frequency of service may be anticipated for North Colorado Boulevard because of the need to serve the adjacent residential neighborhoods and type of activities located on this arterial: Phipps Auditorium, Museum of National History, City Park, school, City Park Golf Course, Park Hill Golf Course, and the industrial uses and employment locations in the I-70/Colorado Boulevard general area. The Park Hill site will be accessible from all parts of the region by rapid transit via a transfer to local buses circulating in the neighborhood.

Page 3
April 24, 1974

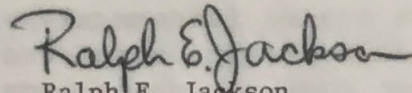
The Federal Center site will be served directly by the PRT. A station location is planned for the Federal Center in the vicinity of 6th Avenue and Union Street. Thus the Federal Center site will be directly accessible from all parts of the District via rapid transit.

The timing for the implementation of the PRT system is 1975-1983. It is anticipated that the PRT will be fully operational by the year 1983.

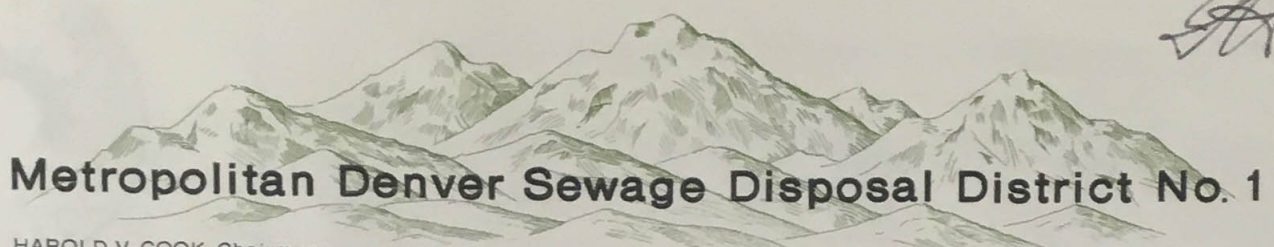
There are no negative environmental comments relating to transit regarding either site for the proposed mint location.

Thank you for the opportunity to review and comment upon this Draft Revised Environmental Impact Statement.

Sincerely,


Ralph E. Jackson
Director of Planning

REJ/ca



Metropolitan Denver Sewage Disposal District No. 1

HAROLD V. COOK, Chairman
MARY B. O'DELL, Chairman Pro Tem
BORIS S. VOUKOVITCH, Secretary
WILLIAM E. KUHN, Treasurer

WILLIAM E. KORBITZ, P. E., Manager

3100 EAST 60TH AVENUE
COMMERCE CITY, COLORADO 80022
TELEPHONE 303 288-6613

March 14, 1974

Mrs. Mary Brooks, Director
U.S. Department of the Treasury
Main Treasury Building
Washington, D.C. 20220

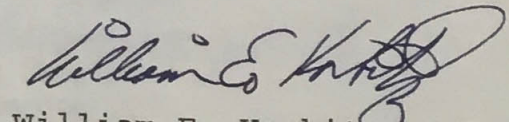
Dear Mrs. Brooks:

A review of the draft revised environmental impact statement concerning construction of the new United States Mint in Denver, Colorado has brought forth no appropriate comments concerning the effects of the proposed construction on sewer service or water pollution in the Denver area. I do have a comment concerning traffic control and traffic problems based on my past experience in connection with traffic control and traffic facilities design.

It would appear that the Park Hill location for the Mint would probably result in considerable additional traffic congestion in the vicinity of Colorado Boulevard, Smith Road and Interstate 70. This type of traffic problem probably would not result if the Mint were located at the Denver Federal Center west of Denver. It probably also would be appropriate to consider the increased air pollution problems by superimposing the additional traffic on the street system in the vicinity of the Park Hill site.

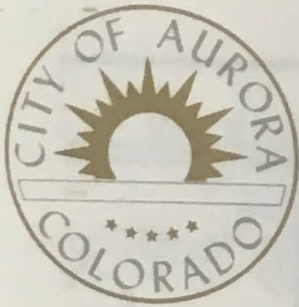
I hope these comments will be of some help to you.

Yours very truly,



William E. Korbitz, P.E.
Manager

WEK/d



Municipal Building

OFFICE OF CITY MANAGER •

AURORA, COLORADO 80010 •

TELEPHONE 366-3591

April 22, 1974

RECEIVED

APR 22 1974

OFFICE OF
SUPERINTENDENT
U. S. MINT AT DENVER

Bureau of the Mint
Department of the Treasury
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Attention: Mrs. Betty Higby, Superintendent

Dear Mrs. Higby:

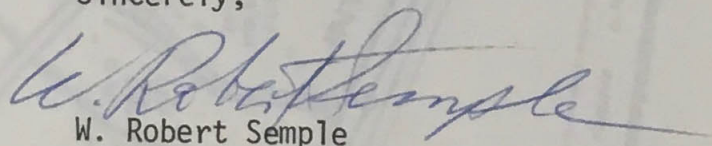
We have reviewed the "Draft Revised Environmental Impact Statement" for the construction of a new U. S. Mint in Denver, and feel that all possible alternate sites were not considered. In a presentation some time ago, Aurora offered, at no cost, a 42-acre site north of 26th Avenue and I-70, between Tower Road and Picadilly Road, for the construction of the new Mint.

This location is adjacent to Interstate 70, railroad trackage is immediately available, and it is also in the vicinity of Stapleton International Airport. We feel that this site might very well provide an excellent solution to any conflict that may exist on the selection of a site for the Denver Mint.

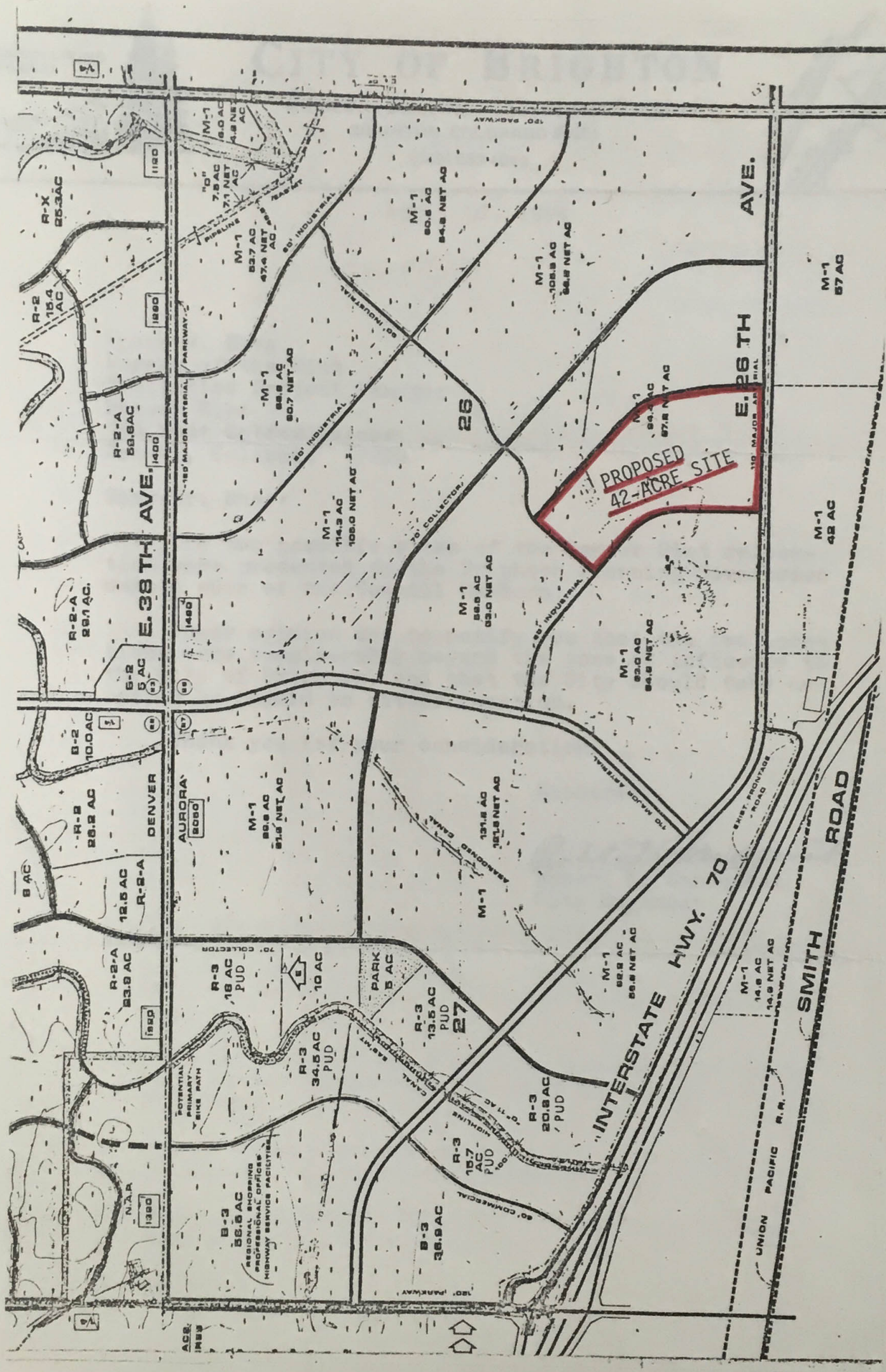
We would be happy to make a detailed presentation to the site selection committee and would urge that the committee review this site in detail before a final decision is made.

We wish to reaffirm the offer of this Aurora site for the new Mint. We believe it meets the necessary requirements for the new facility and would be grateful for the opportunity of discussing it with you.

Sincerely,


W. Robert Semple
City Manager

WRS/p1

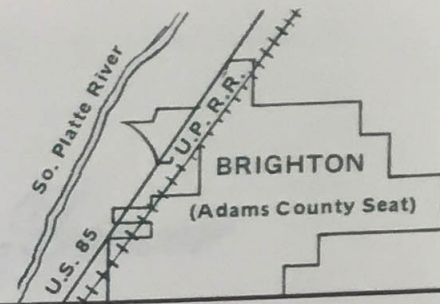


SUBURBAN LIVING
AT IT'S BEST



CITY OF BRIGHTON

MUNICIPAL BUILDING — 36 SOUTH MAIN STREET
BRIGHTON, COLORADO 80601
(303) 659-4050



April 12, 1974

Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The two possible sites of the Denver Mint relocation were presented to the Brighton Planning Commission and to some of the Council Members.

Their opinion was to notify you that the two locations were considerably beyond the zone of influence to the City of Brighton, and that the City should take no action in regard to either location.

Thank you for your consideration.

Sincerely,

Robert L. Sandquist
Robert L. Sandquist
City Engineer

RLS/gm

W.H. McNichols Jr.
MAYOR



City and County of Denver

CITY AND COUNTY BUILDING · DENVER, COLORADO · 80202

AREA CODE 303 297-2721

March 29, 1974

Mrs. Mary Brooks
Director of the Mint
Department of the Treasury
Washington D.C. 20220

Dear Mrs. Brooks:

Thank you for sending us a review copy of the Draft Revised Environmental Impact Statement prepared by the U.S. Mint February 27, 1974, for the construction of a new United States Mint at Denver, Colorado.

City Planning Office staff have reviewed and prepared comments upon the draft. These comments are enclosed.

Highlights of our review are as follows:

- (a) First and foremost, is the legal question of locating the Denver U.S. Mint in-or-out-side of the City and County of Denver. This legal question should be addressed in the impact statement since site location relates to all of the core city's socio-economic and environmental considerations. The Federal Statutes specifically 31 U.S. Code 261 and 262, describe the necessary location for mints and assay offices as follows:

261 " ... The different mints and assay offices shall be known as ... the mint of the United States at Philadelphia ... the mint of the United States at Denver ... the United States assay office at San Francisco ... the United States assay office at New York."

262 " ... The coinage of silver and minor coins shall be carried on at the mint of the United States at Denver, in the State of Colorado."

The Federal Center alternative site is clearly located in the City of Lakewood, in the County of Jefferson, State of Colorado.

The Denver City Attorney's Office has information on the legal requirements should you require the same.

" ... We don't know whether those involved in the preparation of the impact statement are aware of the fact that it is impossible to move a federal establishment from an inner-city location to a suburban location without specific permission of the General Accounting Office of the federal government. This is to prevent the flight to the suburbs that has taken place in some cases at the federal establishment level. It is not uncommon for a federal agency to take off, depart Washington or some other big city, and locate itself in some euphoric sylvan location, where the employees can enjoy the country air, the beautiful views, and the absence of unwanted minority colleagues." ¹

- (b) Both proposed alternatives are located in the Denver Air Quality Control Region, which is the "target area" for implementing federal and state air control strategies. Any implication that the air quality problems are distinguishable between these two alternatives is unfounded by the facts known to the Planning Office. If statistics exist which reflect any air quality measurement differences between the sites, they should be listed. Our investigation shows that air sampling has not been done at either location.

The use of coal-fired energy at the Lakewood site would also add to the suspended particulate air pollution load. This is not quantified in the draft.

- (c) Potential traffic problems which exist because the Lakewood spur tracks cross the 6th Avenue Freeway at grade have not been mentioned.

Similarly, potential traffic problems associated with the interchange at 6th and Simms, which is not a cloverleaf, have been left out of the report.

- (d) The social and economic impact of moving a major employer out of Denver has not been fully examined in the draft statement. Such important factors as loss of Denver school children, housing, classroom space, job opportunities, and estimated loss of city revenues has not been quantified in the draft.

" ... The ethnic distribution chart in Denver: The Core City clearly

¹ Quotes are from a letter to the Mayor from Chancellor Maurice Mitchell of the University of Denver and the United States Commission on Civil Rights.

indicates that Denver is bearing the burden and providing a home for the majority of the ethnic residents of this area. The Black and Hispano minority, for example, are not wanted in Lakewood. If the minorities are not free to move to the suburbs and get the same benefits that they get from Denver, then it is improper and unfair to move to such a location. Result of such a move would be a severe burden on the minority community, which would have to be a commuter employee group in order to reach its place of work. At present mass transit is not readily available from the inner city of Denver to a large number of suburban locations --- particularly to the Federal Center. To force a member of a disadvantaged community to buy an automobile in order to hold a job is a form of discrimination. The kinds of vehicles that can be acquired by disadvantaged persons is likely to be something less than modern vehicles, which may break down frequently, and the result will be absenteeism, job turnover and additional financial burden on the job holder.

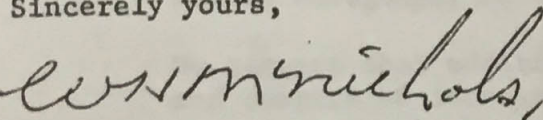
In many ways, therefore, the whole idea of a move from the City of Denver to a white suburb can be viewed as a violation of federal regulations and as a racist or discriminatory action." 1

- (e) We suggest that the Denver alternative be more accurately described as the "Clayton Trust Property" throughout the impact statement.

Here again, the Denver City Attorney's Office has all the necessary information with regard to the "Clayton Trust Property."

The City has appreciated this opportunity for review and comment and stands ready to provide additional information should that be requested. Also enclosed is our "Core City Report" which dwells at length on some of our own concerns.

Sincerely yours,



William H. McNichols, Jr.
MAYOR

DENVER PLANNING OFFICE STAFF REVIEW COMMENTS, ON THE DRAFT REVISED
ENVIRONMENTAL IMPACT STATEMENT PREPARED BY U.S. MINT FEBRUARY 27, 1974
FOR THE CONSTRUCTION OF A NEW UNITED STATES MINT AT DENVER, COLORADO

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Either delete the reference to the Park Hill site or include a reference to the Lakewood site because both are located in the EPA designated enforcement zone for the lowering of auto-related air contaminants. The entire SMSA, which includes the City of Lakewood where the Federal Center is located, is the designated enforcement area because the air pollution problems are indistinguishable throughout the Denver Air Quality Control Region.

p.5 Fifth Paragraph, third sentence says "This site is relatively unfavorable from a meteorological and air pollution point of view."

We would like to see listed the references for this statement since it is unsubstantiated by the facts known to the Planning Office. The meteorology and air pollution, according to our professional staff, are basin-wide phenomena. No data exists on the frequency of occurrence of air pollution episodes in the City of Lakewood versus the Clayton Trust area in the City of Denver. The meteorological differences, if any, are certainly unmeasured and unknown. It would be more accurate to state that "any new site is relatively unfavorable from the standpoint of causing an increase in automobile traffic".

p.6 Second Paragraph, re the railroad spur

We suggest that additional sentences be added about the problems and dangers of increasing the use of Lakewood's spur track. For example, the track crosses the busy 6th Avenue Freeway at grade. Furthermore, the motorists in Lakewood are not accustomed to stopping at these spur tracks at any of the scores of intersections within the City of Lakewood. It is also our understanding that the PRT route would utilize this same right-of-way in the future. It would be well to list the frequency of expected interruptions to the 6th Avenue Freeway traffic caused by locating the mint at the Federal Center.

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Suggest that the 6th and Union Street (Simms) connection be described more fully. It is not a cloverleaf interchange, and it is frequently quite difficult to negotiate for travelers coming from the downtown area. Also, the existing bus service is much better at the Park Hill Clayton Trust site, than it is at the Federal Center.

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Suggest that the use of coal-fired steam boilers be mentioned here, and that the increased use of this central heating plant will likely add to the suspended particulate air pollution load in Lakewood. Also, additional expensive precipitators or other filters may have to be added to the plant.

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The "central Denver area" is not the only place in the Metropolitan Denver Air Quality Control Region which experiences high industrial and vehicular pollution. The entire basin population and activity contributes to the problem, and the air pollutant cloud is evident in Arvada, Lakewood, Aurora, Northglenn, Thornton, Englewood, Commerce City, Westminster, Broomfield, Edgewater, Wheatridge, Littleton, and Federal Heights as well as Denver. The pollutant cloud ignores city and county boundaries.

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p.9 Section 31 Transportation

- I. The center of gravity figures for mint employees need further explanation. The EIS states that the center of gravity at the Park Hill site, over time, would be about two miles to the southwest towards the city core. However, this location is currently one of general out-migration, rather than a center for employee population. The EIS further states that the center for the Lakewood location, over time, would be four miles to the east of the site. We question how long "over time" refers to both sites. Moreover, will the predominately "blue collar" proportion of mint employees affect the location of this center? A map showing the present distribution of employees would be helpful in analyzing the expected employee center of gravity shift, the change in VMT (immediate and long-range), and the extent of disruption to present employee home locations that are envisioned by the EIS.
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 $\frac{450}{800} = 0.56$ or 56%. What is the justification for use of this percentage?
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- p.11 Union Street is not currently under construction for expansion from two to six lanes. However, it is scheduled for widening to 4 lanes for through traffic plus additional turning lanes at some future date.

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The school administration building air sampling station is located several miles from the Park Hill site and is quite probably not representative of the air quality at Park Hill. Park Hill (located on higher ground), may experience more favorable diluting winds and is located downwind of grassy, vegetated, residential land use. Reference our comments on page five.

p.15 Middle Paragraph

You should mention here that the Lakewood site is also in the EPA and State demonstration areas, and that the additional VMT caused by mint traffic is substantially (50%) higher for the Lakewood site (3,780 vehicle miles for Clayton Trust property versus 5,580 vehicle miles for Lakewood).

p.15 Last Paragraph

Air pollution sources are not concentrated in the Denver Central Business District. The worst pollution sources and levels are centered north of the city when winds are light and atmospheric conditions are stable. Pollutants from the Federal Center would mix with the basin air just as readily as would air from Park Hill.

p.18 Second Paragraph

Moving the employee residence center from Denver to Lakewood only compounds the growing problems of the core city. At a time when we are trying to halt the white rush to the suburbs, the Federal Government should make some efforts to assist. Closely related to this issue is the problem of trying to integrate Denver's schools. If the mint site is moved to the City of Lakewood the core city will lose an estimated 700 Anglo school children, making Denver's racial balance efforts even more difficult. There should be more consistency in Federal agency actions. Reference the Denver Core City report prepared by the Planning Office.

p.18 Third Paragraph

Denver has more space for the school aged children of the mint employees than does Lakewood. This existing classroom space should be utilized prior to further overloading suburban school systems, such as in Lakewood.

p.18 Fourth Paragraph

A considerable detrimental economic loss would be experienced by Denver. The loss of 800 jobs represents a head tax loss, the city service industries would be losers, and the loss of these stable and middle income working people is unacceptable to the people of Denver. More study needs to be done on quantifying this projected economic impact by the Federal Agency involved in this

proposed relocation. Such factors as the impact on jobs in the construction industry, real estate, insurance, retail sales, and tax revenues should be examined in depth by the U.S. Mint. There are also economic multiplier effects which would result if the facility is moved out of Denver.

No study at all has been done on the social ramifications of these alternate proposals. Something should be said about the positive socio-economic impact of locating a major employer of 800 persons in the Park Hill neighborhood, where jobs are needed. The social studies by the U.S. Mint are very scanty.

p.19 Paragraph E

The Federal Center site is located in a different city than Denver.

p.22 Second Paragraph

Federal and State plans to reduce VMT include Lakewood as well as Park Hill.

Other comments generated in the Denver Planning Office staff review are these:

- a. Housing is available in shorter supply in the City of Lakewood.
- b. Federal law specifically identifies the City of Denver as the site for a U.S. Mint.
- c. The Clayton Trust Property at Park Hill is closer to these other major tourist uses:
 - Stapleton International Airport
 - City Park Zoo
 - Coliseum and Stock Show
 - Convention Center
 - Central Business District Hotel area
 - Sports Complex, Mile High Stadium

Thus, tourists would be travelling fewer vehicle miles to take in the U.S. Mint if it were located at the Clayton Trust Property site.

- d. The Denver Planning Office earlier comments with regard to the Crescent Street Yards site for the U.S. Mint still stand.



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

March 29, 1974

Mr. Frank W. Rhea
Facilities Project Manager
Department of the Treasury
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

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City Planning Office staff have reviewed and prepared comments upon the draft. These comments are enclosed.

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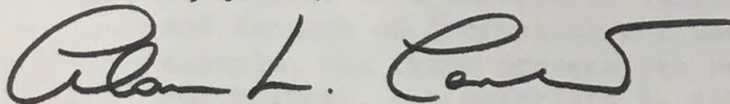
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Sincerely yours,



Alan L. Canter
Director of Planning

Encl.

ALC/WW/mlt

DENVER PLANNING OFFICE STAFF REVIEW COMMENTS, ON THE DRAFT REVISED
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FOR THE CONSTRUCTION OF A NEW UNITED STATES MINT AT DENVER, COLORADO

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proposed relocation. Such factors as the impact on jobs in the construction industry, real estate, insurance, retail sales, and tax revenues should be examined in depth by the U.S. Mint. There are also economic multiplier effects which would result if the facility is moved out of Denver.

No study at all has been done on the social ramifications of these alternate proposals. Something should be said about the positive socio-economic impact of locating a major employer of 800 persons in the Park Hill neighborhood, where jobs are needed. The social studies by the U.S. Mint are very scanty.

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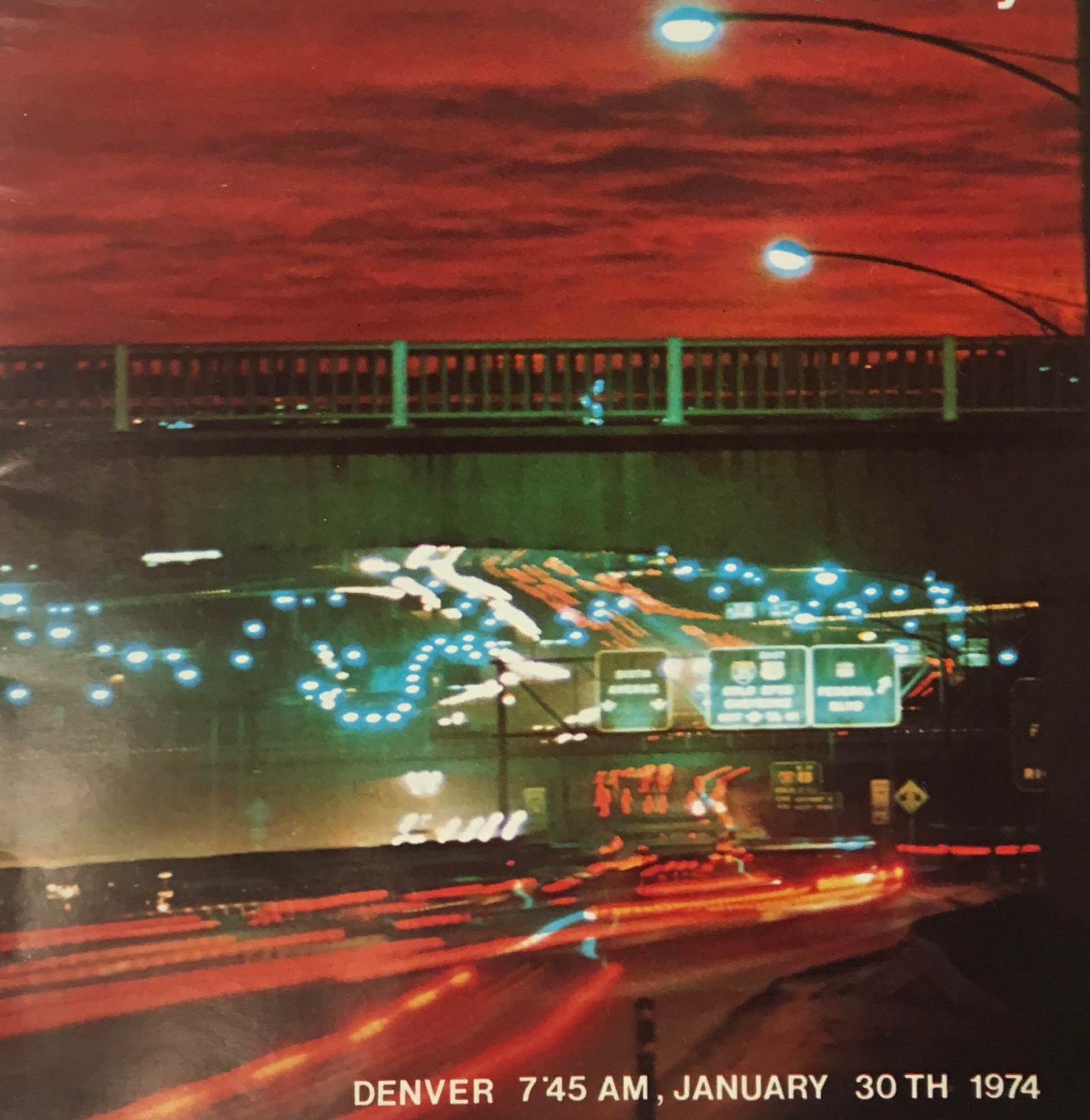
Thus, tourists would be travelling fewer vehicle miles to take in the U.S. Mint if it were located at the Clayton Trust Property site.

- d. The Denver Planning Office earlier comments with regard to the Crescent Street Yards site for the U.S. Mint still stand.

ALC/WW/mlt

DENVER :

the core city



DENVER 7:45 AM, JANUARY 30 TH 1974

A STATEMENT OF POLICY

It has been the policy of the City and County of Denver to annex in an orderly and studied manner at the request of the landowner, those unoccupied areas contiguous to Denver's present urbanized area which might logically be expected to develop within the near future and which can best be served by the City and County. Within this policy guideline, Denver annexations occur to accomplish the following:

1. To provide the most economical services to the greatest number of citizens.
2. To retain the tax base necessary to continue those services and programs which are the hallmark of a great city.
3. To provide for the retention of many different living styles and housing types.
4. To retain the relative political balance in terms of representation between Denver and its suburban neighbors.
5. To minimize the creation of uneconomical special districts and incorporations.
6. To retain that population necessary to provide for the high standard of water, sewer, police, and fire services, those in the city have come rightfully to expect.

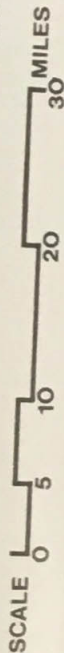
JEFFERSON CO. (778.30 sq. miles)

ADAMS CO. (1,229.82 sq. miles)

**117.51
sq. miles**

ARAPAPHOE CO. (797.79 sq. miles)

DENVER METROPOLITAN AREA

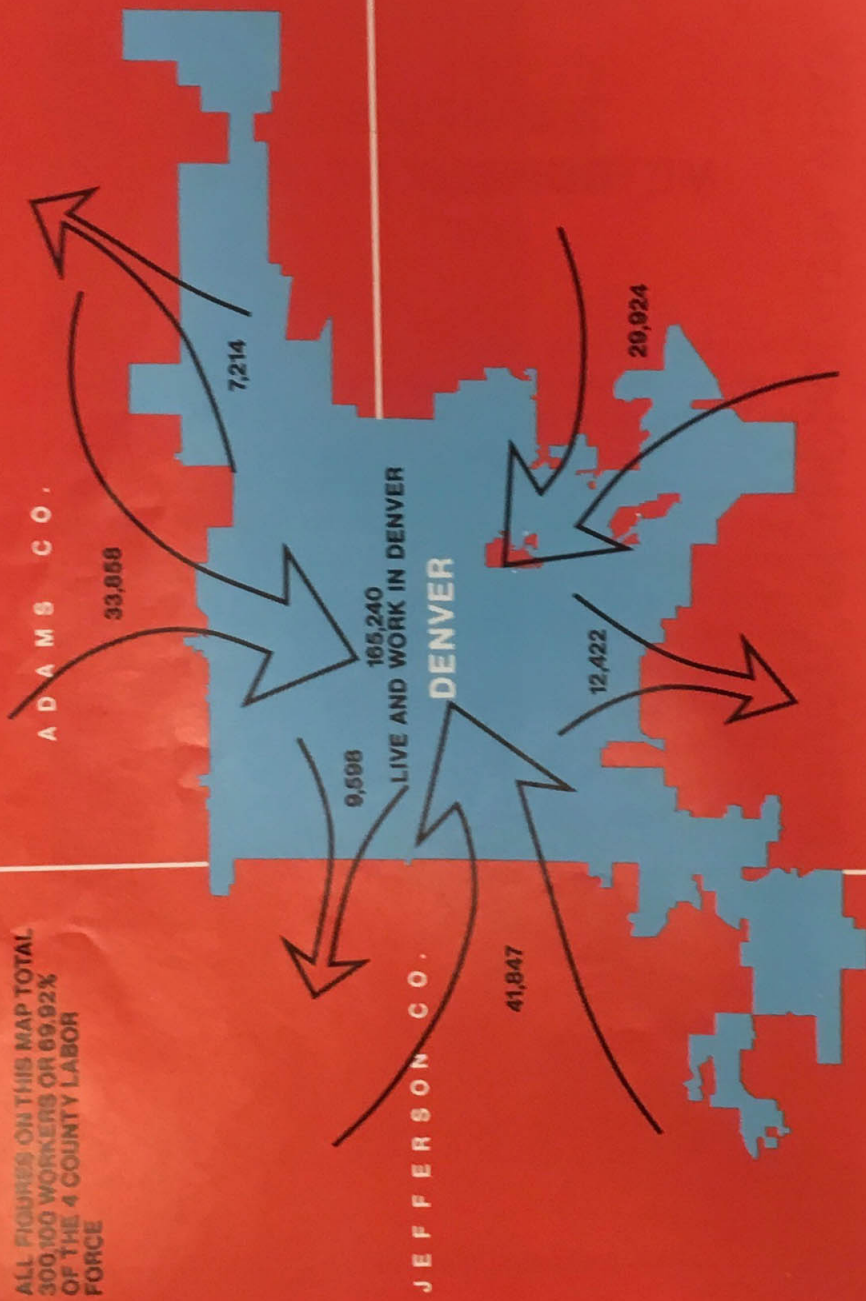


THE DENVER METROPOLITAN AREA

Shown on the preceding page is a map of the City and County of Denver drawn to scale with the three surrounding suburban counties. The 1960 area of Denver is shown in red with all annexations since that year in black. During the thirteen years of annexation activity represented here, the City and County of Denver has annexed 1.42% of Adams County, 1.85% of Arapahoe County, and 1.37% of Jefferson County. While these percentage totals are miniscule when compared with the sizes of the various counties from which they were removed, they have allowed Denver to continue to offer areas for growth within its own borders. Without annexations, no viable living and growth alternatives would have been available to the City.

WHERE PEOPLE WORK

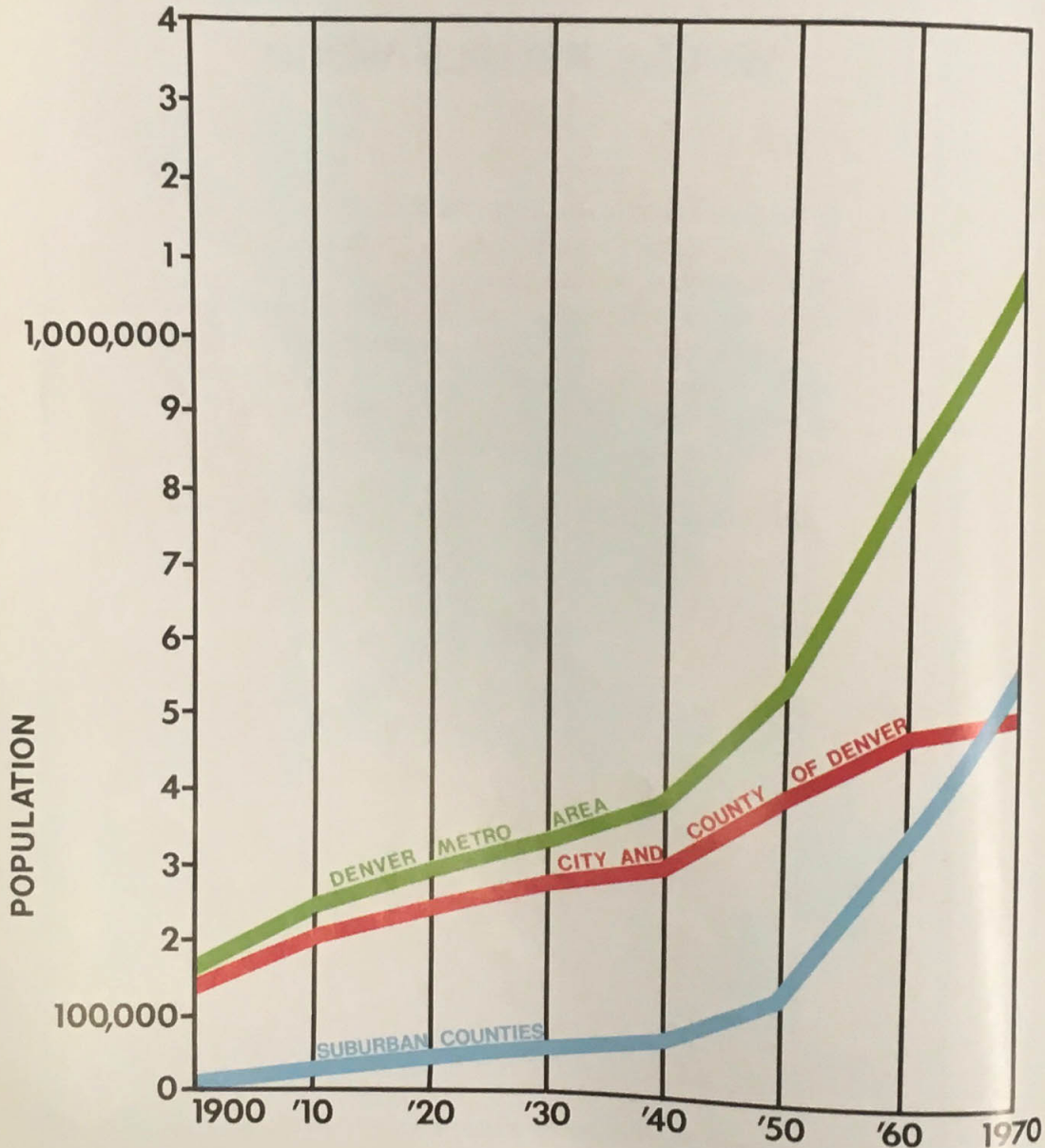
ALL FIGURES ON THIS MAP TOTAL
300,100 WORKERS OR 69.92%
OF THE 4 COUNTY LABOR
FORCE



WHERE PEOPLE WORK

Of the 2,932.95 square miles within the Denver Metropolitan Area, the City and County of Denver makes up 117.60 square miles or 4% of the total. As the chart opposite shows, 4% of the land provides jobs for 270,869 people. This represents 61.31% of the four county labor force. It should also be noted that many if not most employers outside the City and County are, to a great degree, dependent upon the ready availability of services and facilities provided by the core city for their business development.

POPULATION GROWTH 1900 - 1970



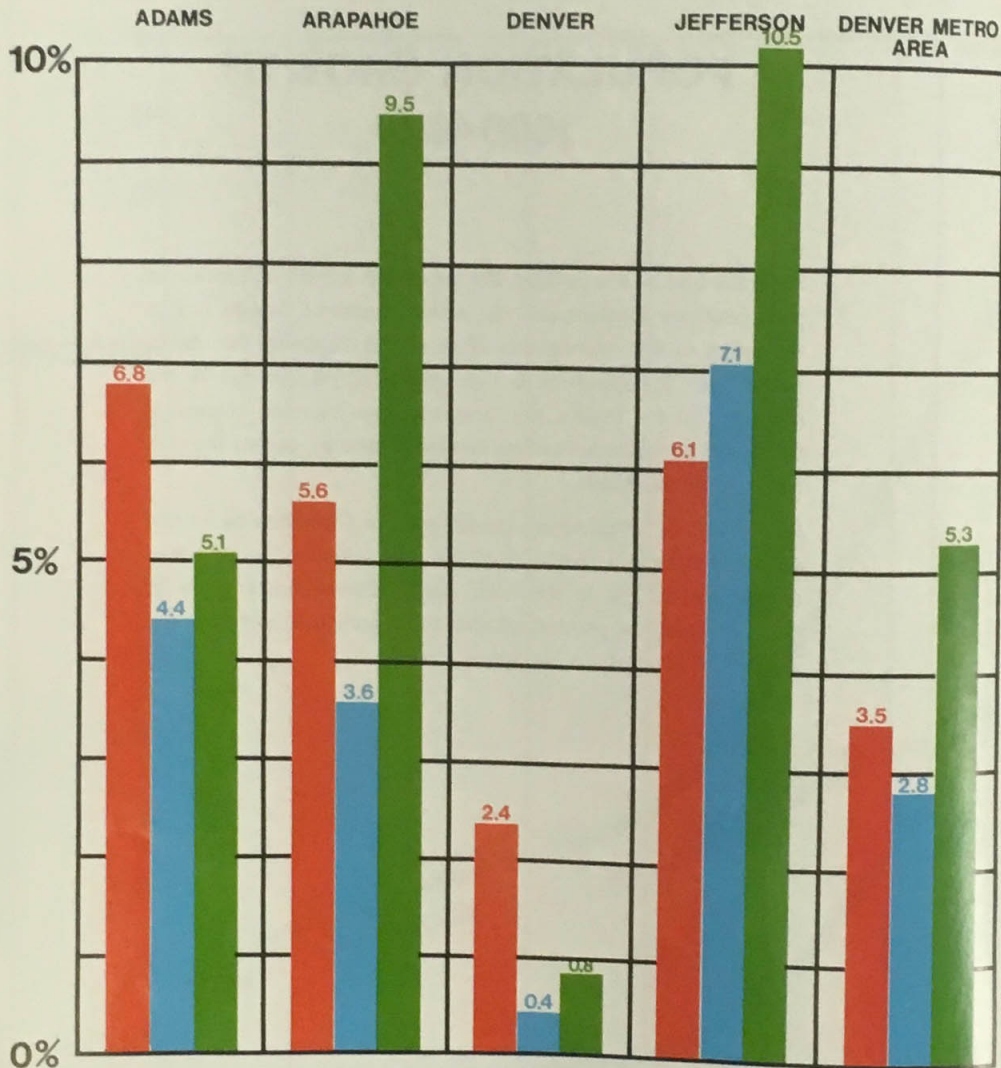
POPULATION GROWTH 1900-1970

Since the turn of the century, the population growth of Denver has been relatively constant and represents an almost straight line on the graph at left. During this same period, however, the metropolitan area has grown at an ever increasing rate so that by the latter half of the 1960's, the three suburban counties, dependent on Denver for job opportunities and most services, passed the core city in total population.

From 1960 to 1970, Adams County grew in population by 54.4%; Arapahoe County increased by 42.9%; and Jefferson County added a whopping 82.7%. In this same period, Denver proper grew by 4.2%. It should be pointed out that these growth figures take into account all annexations by Denver.

RATE OF POPULATION GROWTH BY COUNTY

1940-1960 1960-1970 1972



NOTE: ANNUAL RATES ARE COMPOUND
COUNTY POPULATIONS HAVE BEEN
ADJUSTED FOR ANNEXATIONS
COMPLETED BY YEAR OF ESTIMATE

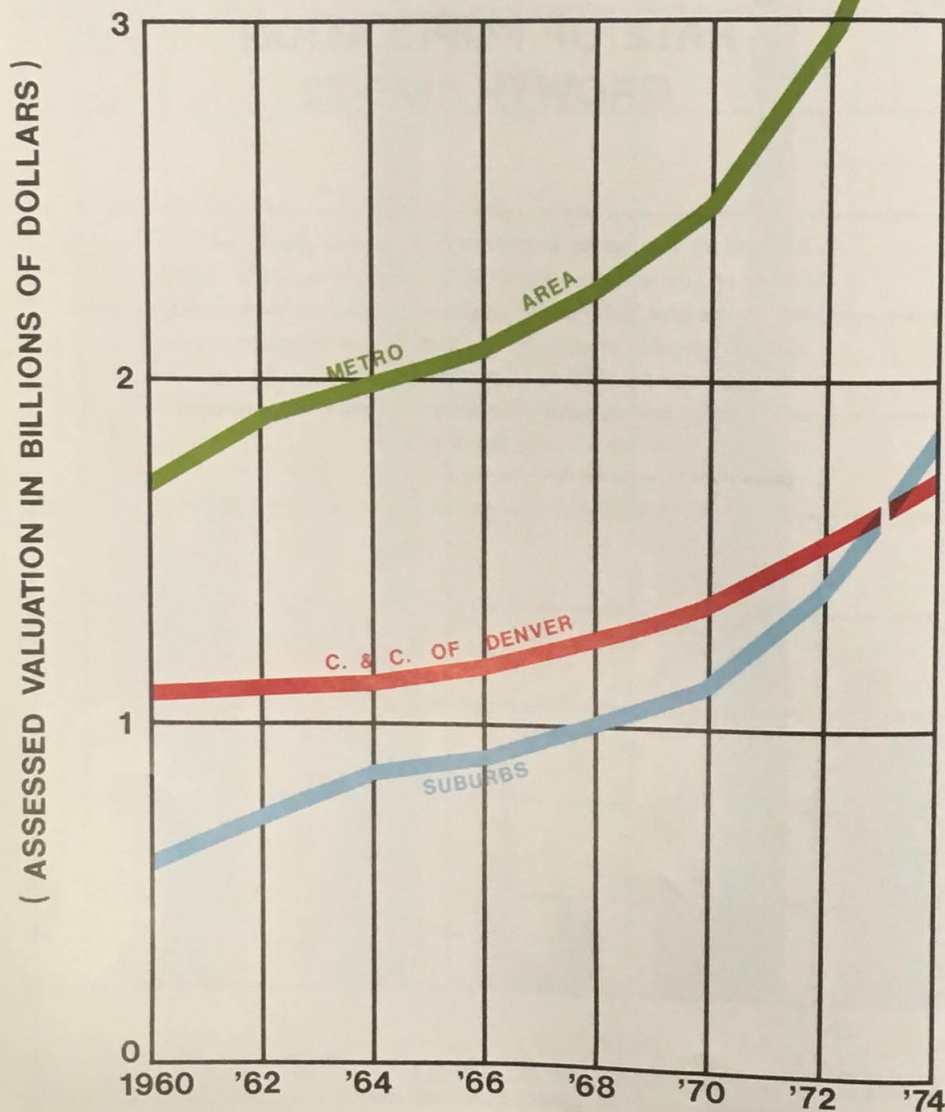
DENVER METRO
AREA

ESTIMATED BY U.S. BUREAU
OF CENSUS & DRCOG

RATE OF POPULATION GROWTH 1940-72

To illustrate the relative imbalance in population growth between Denver and its suburban neighbors, it is only necessary to make a few comparisons between the figures illustrated on the preceding page. Of special interest is the fact that while all jurisdictions grew in population from 1960 to 1970, Denver's 4% population gain as shown would have been an almost 5% population loss if no annexations had taken place during the decade.

ASSESSED VALUATION METRO COUNTIES

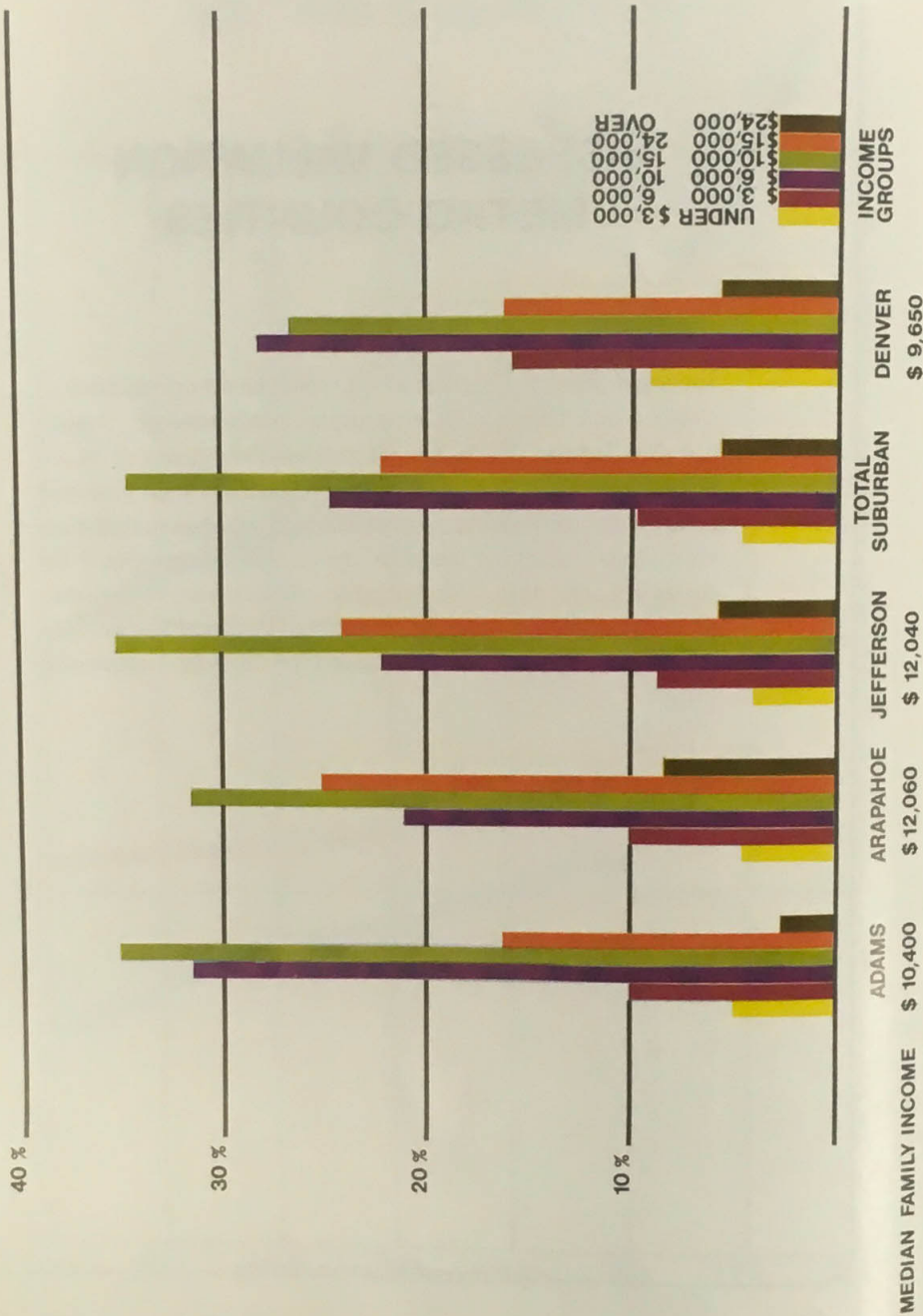


ASSESSED VALUATION METRO COUNTIES

The significance of the graph at left cannot be over-emphasized. It clearly shows that while the metropolitan area's assessed valuation has risen sharply, Denver has not matched the rate of gain by the three surrounding counties. Indeed, the suburban areas have now matched Denver in terms of total assessed valuation even though none of them assess at the same rate as does the core city. It becomes apparent that if the suburban counties were to re-assess property on the same basis as the City and County of Denver, their combined total would presently exceed the City's by a substantial margin.

FAMILY INCOME CHARACTERISTICS

DENVER/SUBURBAN COMPARISON OF INCOME GROUPS



FAMILY INCOME CHARACTERISTICS

While Denver provides the places to work and many essential services to both its own citizens as well as residents of suburban areas, the preceding chart dramatically indicates that incomes within jurisdictions do not reflect that fact. A quick glance at the median income figures for the suburban counties and the core city should be sufficient to illuminate the problem — Denver has a completely disproportionate share of the lower income families in the metro area. As a case in point, Denver contains 57% of all the families in the four county area earning \$3,000 a year or less while in one neighboring county, 65% of all the families earn between \$10,000 and \$15,000 annually.

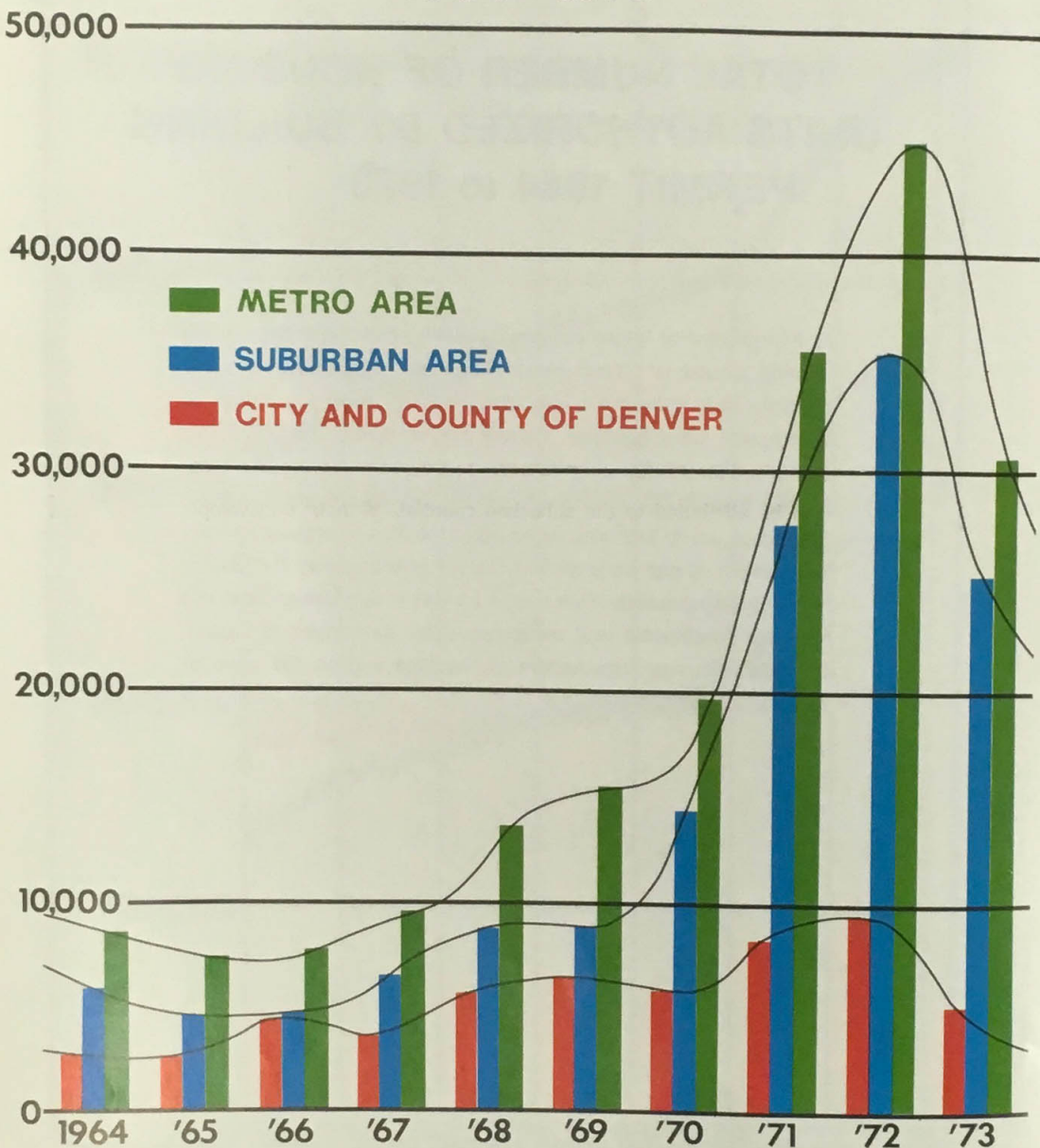
HOUSING UNITS IN THE DENVER METRO AREA



TOTAL NUMBER OF HOUSING UNITS AUTHORIZED BY BUILDING PERMIT 1964 to 1973

As an indicator of future economic viability, building activity in the housing market is a most reliable indicator. The graph serves to illustrate that while the metro area housing starts (as measured by permits) were booming, Denver fell far behind. In 1972, for example, over 45,000 permits were issued in the four county area, but less than 10,000 of those were in the City and County of Denver. Since each yearly total may be added to the next to achieve a cumulative effect, it can be seen that Denver is falling ever further behind in housing activity. One reason for this is that Denver does not have the developable land resources within its borders to sustain continued housing construction of the type and on the scale of suburban communities.

TOTAL NUMBER OF HOUSING UNITS AUTHORIZED BY BUILDING PERMITS 1964-1973

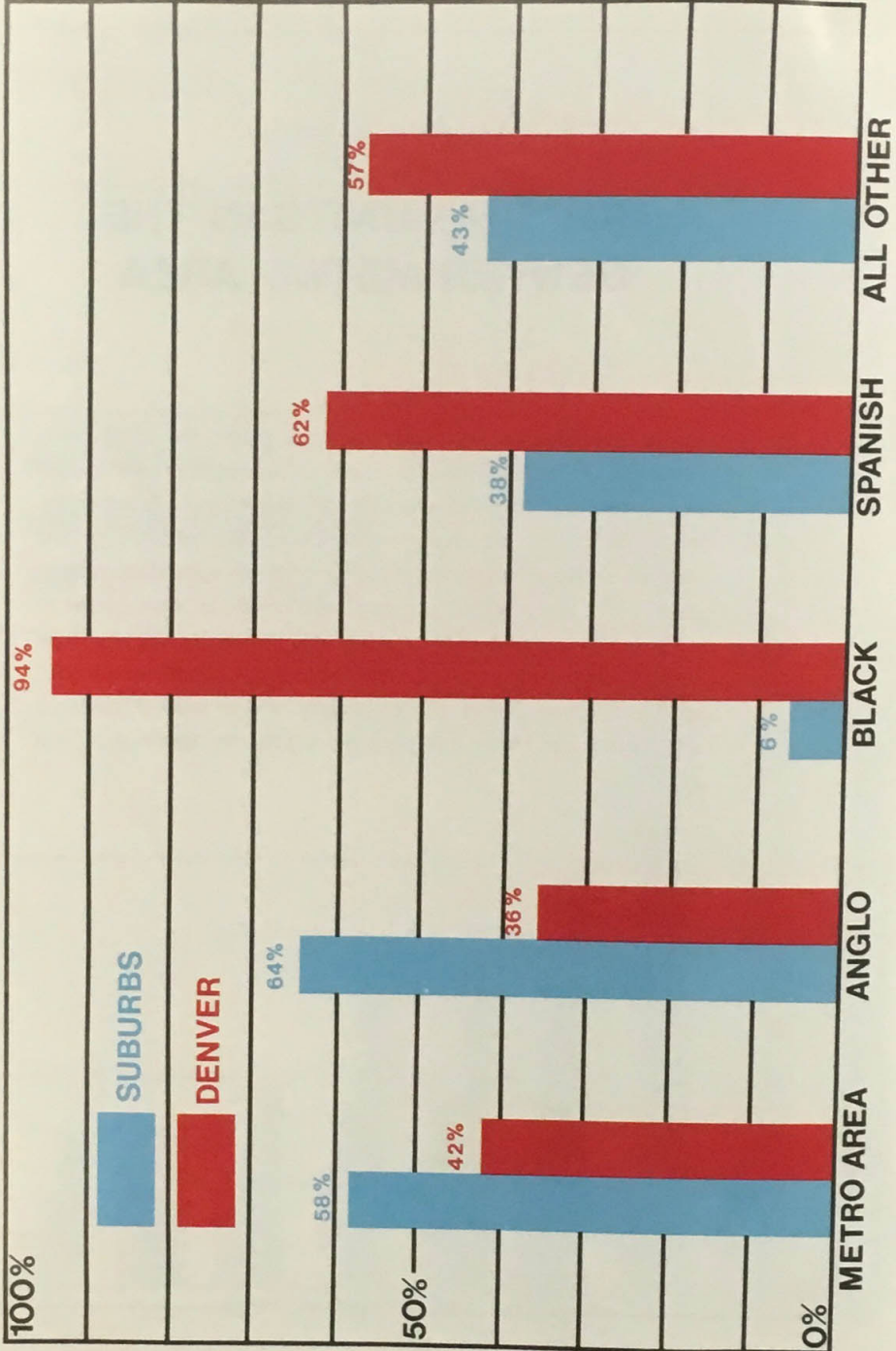


HOUSING UNITS IN THE DENVER METRO AREA

Taken in conjunction with housing permits issued, this chart makes the area housing situation crystal clear. Once again it can be seen that in terms of total housing units available Denver is falling behind drastically in its ability to provide housing of the type and quantity necessary to attract its share of the area population. Since 1965, when the suburbs first surpassed Denver in total number of housing units, almost all the metropolitan increase in housing stock can be attributed to the suburban counties. Without undeveloped land to build on, Denver cannot hope to slow or reverse the trend and thereby remain an attractive and livable city able to grow and progress.

DENVER METROPOLITAN AREA / ETHNIC BREAKDOWN

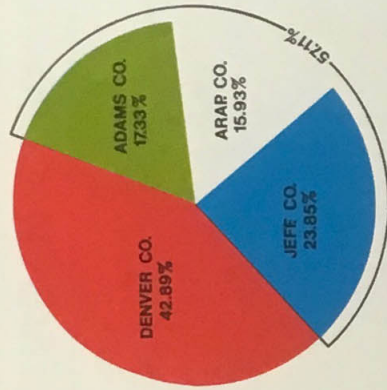
DENVER - SUBURBAN COMPARISON



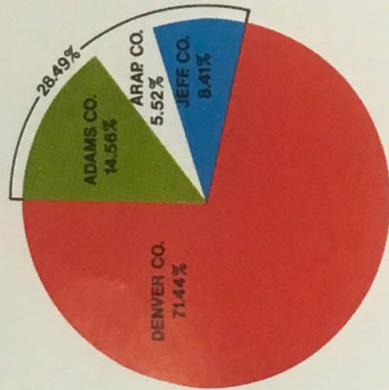
ETHNIC BREAKDOWN DENVER — SUBURBAN COMPARISON

Denver contains only 42% of the metropolitan area population. However, 94% of the total black population of the metro area, 62% of all Spanish surname, and 57% of all other minorities in the four county area reside within the City and County of Denver.

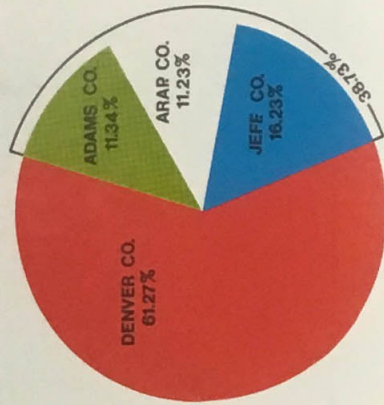
**PERCENT DISTRIBUTION OF THE
POPULATION
DENVER METROPOLITAN AREA**



**PERCENT DISTRIBUTION
PUBLIC ASSISTANCE CASES
DENVER METROPOLITAN AREA**



**PERCENT DISTRIBUTION
OF FAMILIES ON
SOCIAL SECURITY INCOME
DENVER METROPOLITAN AREA**



PERCENT DISTRIBUTION —

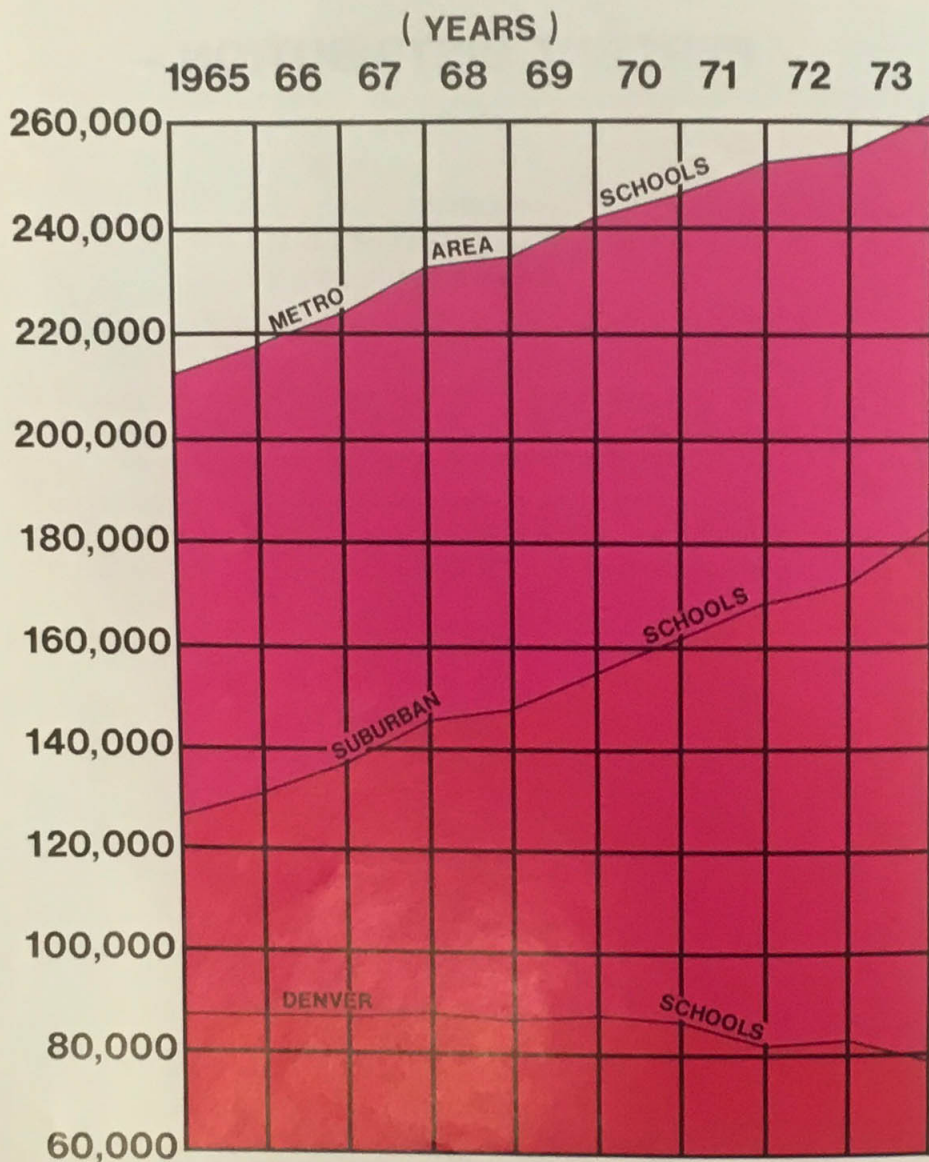
POPULATION

PUBLIC ASSISTANCE CASES

SOCIAL SECURITY INCOME

With 42% of the total metropolitan area population, Denver has over 61% of all those families living on Social Security and 71.49% of the total public assistance caseload for the area. The message is clear — Denver has a vast majority of all those persons in the area needing special services or assistance while as a city it is losing, and finding it increasingly difficult to attract, those income groups much needed to provide the financial and leadership support so necessary to a vital community.

PUBLIC SCHOOLS AVERAGE DAILY MEMBERSHIP DENVER METROPOLITAN AREA



PUBLIC SCHOOLS — AVERAGE DAILY MEMBERSHIP

The chart on the preceding page tells more than just a story of declining school attendance in the City and County of Denver. When one considers that between 1972 and 1973 the Denver schools lost more than 3,000 elementary school students from the preceding year, the message is unmistakable. Those persons in the prime earning years are leaving Denver in preference for the suburban areas. The continuation of this trend cannot help but have the most deleterious effect upon the City and County of Denver in its ability to serve its citizens while continuing to provide services of the highest caliber for the entire metropolitan area.

CREDITS

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William H. McNichols
Mayor



CITY AND COUNTY OF DENVER

DEPARTMENT OF PLANNING

OFFICE OF DIRECTOR
ROOM 300
1445 CLEVELAND PLACE
DENVER, COLORADO 80202

March 27, 1974

Mr. Frank W. Rhea
Facilities Project Manager
Department of the Treasury
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for sending us a review copy of the Draft Revised Environmental Impact Statement prepared by the U.S. Mint February 27, 1974, for the construction of a new United States Mint at Denver, Colorado.

Planning Office staff have reviewed and prepared comments upon the draft. These comments are enclosed.

Highlights of our review are as follows:

- (a) First and foremost, is the legal question of locating the Denver U.S. Mint in-or-out-side of the City and County of Denver. This legal question should be addressed in the impact statement since site location relates to all of the core city's socio-economic and environmental considerations. The Federal Statutes specifically 31 U.S. Code 261 and 262, describe the necessary location for mints and assay offices as follows:

261 " ... The different mints and assay offices shall be known as ... the mint of the United States at Philadelphia ... the mint of the United States at Denver ... the United States assay office at San Francisco ... the United States assay office at New York."

262 " ... The coinage of silver and minor coins shall be carried on at the mint of the United States at Denver, in the State of Colorado."

The Federal Center alternative site is clearly located in the City of Lakewood, in the County of Jefferson, State of Colorado.

The Denver City Attorney's Office has information on the legal requirements should you require the same.

- (b) Both proposed alternatives are located in the Denver Air Quality Control Region, which is the "target area" for implementing federal and state air control strategies. Any implication that the air quality problems are distinguishable between these two alternatives is unfounded by the facts known to the Planning Office. If statistics exist which reflect any air quality measurement differences between the sites, they should be listed. Our investigation shows that air sampling has not been done at either location.

The use of coal-fired energy at the Lakewood site would also add to the suspended particulate air pollution load. This is not quantified in the draft.

- (c) Potential traffic problems which exist because the Lakewood spur tracks cross the 6th Avenue Freeway at grade have not been mentioned.

Similarly, potential traffic problems associated with the interchange at 6th and Simms, which is not a cloverleaf, have been left out of the report.

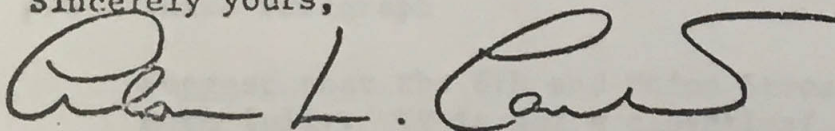
- (d) The social and economic impact of moving a major employer out of Denver has not been fully examined in the draft statement. Such important factors as loss of Denver school children, housing, classroom space, job opportunities, and estimated loss of city revenues has not been quantified in the draft.

- (e) We suggest that the Denver alternative be more accurately described as the "Clayton Trust Property" throughout the impact statement.

Here again, the Denver City Attorney's Office has all the necessary information with regard to the "Clayton Trust Property."

The Planning Office has appreciated this opportunity for review and comment and stands ready to provide additional information should that be requested. Also enclosed is our "Core City Report" which dwells at length on some of our own concerns.

Sincerely yours,



Alan L. Canter
Director of Planning

Encl.

ALC/WW/mlt

DENVER PLANNING OFFICE STAFF REVIEW COMMENTS, ON THE DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT PREPARED BY U.S. MINT FEBRUARY 27, 1974 FOR THE CONSTRUCTION OF A NEW UNITED STATES MINT AT DENVER, COLORADO

p.3 Site A description should be changed from "Park Hill Golf Course" to "The Clayton Trust Property" and it should not be implied that this is a municipal park because it is not legally designated as a park. The property is leased by the city from the trust and sublet to an operator on a temporary basis.

p.3 Central Paragraph, last sentence.
Either delete the reference to the Park Hill site or include a reference to the Lakewood site because both are located in the EPA designated enforcement zone for the lowering of auto-related air contaminants. The entire SMSA, which includes the City of Lakewood where the Federal Center is located, is the designated enforcement area because the air pollution problems are indistinguishable throughout the Denver Air Quality Control Region.

p.5 Fifth Paragraph, third sentence says "This site is relatively unfavorable from a meteorological and air pollution point of view."

We would like to see listed the references for this statement since it is unsubstantiated by the facts known to the Planning Office. The meteorology and air pollution, according to our professional staff, are basin-wide phenomena. No data exists on the frequency of occurrence of air pollution episodes in the City of Lakewood versus the Clayton Trust area in the City of Denver. The meteorological differences, if any, are certainly unmeasured and unknown. It would be more accurate to state that "any new site is relatively unfavorable from the standpoint of causing an increase in automobile traffic".

p.6 Second Paragraph, re the railroad spur

We suggest that additional sentences be added about the problems and dangers of increasing the use of Lakewood's spur track. For example, the track crosses the busy 6th Avenue Freeway at grade. Furthermore, the motorists in Lakewood are not accustomed to stopping at these spur tracks at any of the scores of intersections within the City of Lakewood. It is also our understanding that the PRT route would utilize this same right-of-way in the future. It would be well to list the frequency of expected interruptions to the 6th Avenue Freeway traffic caused by locating the mint at the Federal Center.

p.6 Third Paragraph

Suggest that the 6th and Union Street (Simms) connection be described more fully. It is not a cloverleaf interchange, and it is frequently quite difficult to negotiate for travelers coming from the downtown area. Also, the existing bus service is much better at the Park Hill Clayton Trust site, than it is at the Federal Center.

p.6 Sixth Paragraph

Suggest that the use of coal-fired steam boilers be mentioned here, and that the increased use of this central heating plant will likely add to the suspended particulate air pollution load in Lakewood. Also, additional expensive precipitators or other filters may have to be added to the plant.

p.7 Third Paragraph, last sentence

The "central Denver area" is not the only place in the Metropolitan Denver Air Quality Control Region which experiences high industrial and vehicular pollution. The entire basin population and activity contributes to the problem, and the air pollutant cloud is evident in Arvada, Lakewood, Aurora, Northglenn, Thornton, Englewood, Commerce City, Westminster, Broomfield, Edgewater, Wheatridge, Littleton, and Federal Heights as well as Denver. The pollutant cloud ignores city and county boundaries.

p.8 "Concept Lakewood" is a draft plan for the City of Lakewood which has not been adopted and is now receiving criticism from local residents. There has been no official response from the citizens of Lakewood on the proposed mint site at the Federal Center.

p.9 Section 31 Transportation

I. The center of gravity figures for mint employees need further explanation. The EIS states that the center of gravity at the Park Hill site, over time, would be about two miles to the southwest towards the city core. However, this location is currently one of general out-migration, rather than a center for employee population. The EIS further states that the center for the Lakewood location, over time, would be four miles to the east of the site. We question how long "over time" refers to both sites. Moreover, will the predominately "blue collar" proportion of mint employees affect the location of this center? A map showing the present distribution of employees would be helpful in analyzing the expected employee center of gravity shift, the change in VMT (immediate and long-range), and the extent of disruption to present employee home locations that are envisioned by the EIS.

II. The EIS uses 900 one-way (450 two-way) employee automobile trips for calculations of VMT. What is the source of that figure? Presently the percentage using auto = $\frac{285}{461} = 62\%$

The projected percentage of auto $\frac{450}{800} = 0.56$ or 56%. What is the justification for use of this percentage?

III. No increase is projected for visitors to the Mint. Is it known whether the 200 cars and/or the five buses visit the Mint specifically for the Mint or because of other tourist attractions in the CBD?

p.11 Union Street is not currently under construction for expansion from two to six lanes. However, it is scheduled for widening to 4 lanes for through traffic plus additional turning lanes at some future date.

p.14 First Paragraph

The school administration building air sampling station is located several miles from the Park Hill site and is quite probably not representative of the air quality at Park Hill. Park Hill (located on higher ground), may experience more favorable diluting winds and is located downwind of grassy, vegetated, residential land use. Reference our comments on page five.

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- d. The Denver Planning Office earlier comments with regard to the Crescent Street Yards site for the U.S. Mint still stand.

ALC/WW/mlt

W.H. McNichols Jr.
MAYOR



City and County of Denver

CITY AND COUNTY BUILDING · DENVER, COLORADO · 80202

AREA CODE 303 297-2721

April 30, 1974

Mr. Frank Rhea
Facilities Project Manager
The Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

I have just finished reading what I understand is the rewrite of the Colorado Department of Health's position regarding the E.I.S./U. S. Mint in the Denver SMSA. Quite frankly I am delighted to find that at long last the various station samplings for air quality located throughout the Denver area apparently are available. Denver has not been made privy to this information although we have requested the information from the State on numerous occasions, but were always told that the reports had not been received from the laboratory in Carolina. We would appreciate receiving a complete report for all stations as soon as possible.

As far as the State's remarks regarding the Mint location, it should be pointed out that the annual geometric means cited in Mr. Kirkpatrick's letter to you of April 18, 1974, are those of 1970 and not of 1974--hardly an up-to-date scientific data analysis. I do note with interest "Attachment C" of Mr. Kirkpatrick's letter, i.e., The Summary of Suspended Particulate Data and the apparent 1973 projected reduction at the Hull Photo sampling station from that of 1970. I also note with considerable interest the rather significant almost 12-point jump in three years projected over the same time for the Lakewood site. Mr. Kirkpatrick's letter infers that VMT will be minimized by locating the Mint at the Federal Center, which seems to confuse if not contradict the above referenced data, nor does it speak to the tremendous growth experienced and anticipated out Sixth Avenue and on up into the surrounding foothills of the Denver S.M.S.A. Nor does it speak to the very real fact that most of the present Mint employees will travel more miles to reach the Federal Center than the Park Hill site.

We, too, have great concern for the Park Hill site and for all of Denver for that matter as far as Denver's falling within the "boundary" established by the State Health Department and the E.P.A. There is no scientific information that has been made available to the City to date which proves that Denver must cease and desist all growth or change, and that the suburban areas surrounding Denver can continue their uncontrollable sprawl east, north, south and west into the mountains themselves with no increase in

degregation to the quality of air in the Denver S.M.S.A.

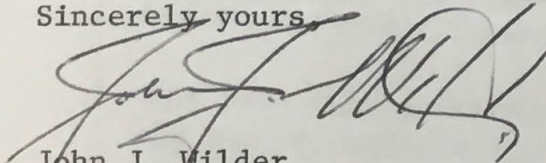
It should also be pointed out that Mr. Kirkpatrick's letter indicates that the Federal Center will be served by some type of P.R.T. (non-polluting) while the Park Hill site would not. Since the projected P.R.T. system will not be completed until 1984--some 10 years from now--if ever, this seems somewhat presumptuous since there is considerable discussion going on in Congress today regarding the future funding of P.R.T. systems, as well as the tremendous efforts at funding going on across the nation by D.O.T. to supply cities with dollars to purchase rubber tire busses.

It is also interesting to note the ambient air standards established for 1977 and Mr. Kirkpatrick's apparent willingness to not condemn the Lakewood site for either its projected growth as he pointed out, or the apparent willingness to wait and see about the success or failure of the P.R.T. in 1984, yet gives little or no consideration to the total air quality of the entire region nor to where the present employees live, nor to the flexibility of the R.T.D.'s present and always expanding rubber tire bus system, that could be made more viable for either site, nor to science's efforts to modify the internal combustion engine to reduce pollution by 1977. The latter seemingly is far more possible and positive than projections for 1984, especially since the Mint would be finished at approximately the same time.

In our view, this is just one more in a long list of efforts to speak of the problems of air pollution in Denver proper as if it were a vacuum rather than address the real issues for all concerned, the total SMSA. In our opinion a degregation of air quality would be experienced at the Arvada sampling station, already a point of one of the highest concentrations of pollutants in the entire Denver SMSA, by locating the Mint at the Federal Center due to the movement and collection of air currents moving south to north.

In closing, it should be pointed out that Mr. Kirkpatrick's letter to you of April 18, 1974, evidently was the second letter regarding this matter written to you by the State Health Department. We would appreciate having a copy of the first letter for our files since we understand the two letters were contradictory to each other.

Sincerely yours,



John J. Wilder
Administrative Assistant

cc: Mayor W. H. McNichols, Jr.
Dr. Edward G. Dreyfus, Executive Director, Colo. Department of Health
Robert D. Siek, MPH, Coordinator, Environmental Programs
J. Mullen, Denver Chamber of Commerce
Mr. Robert C. Rosenheim, Chairman, Mountain Plains Federal Regional Council
Mr. Alan Canter, Director, Denver Planning Office
Mr. George Cerrone, Assistant City Attorney

JAMES L. OGILVIE
Secretary-Manager



Board of Water Commissioners

144 West Colfax Avenue Denver, Colorado 80202 Phone 222-5511

COMMISSIONERS

WILLIAM G. TEMPLE, President JOHN A. YELENICK, 1st Vice-President
ANDREW HORAN, JR. CHARLES F. BRANNAN RICHARD S. SHANNON, JR.

March 20, 1974

If I can supply any additional information, please contact this Department at any time.

Mr. Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Thank you for sending the Department a copy of the Draft Revised Environmental Impact Statement for the new Denver Mint. I appreciate the opportunity to review the Impact Statement and offer comments to you concerning water service to the proposed mint sites.

I would recommend that you contact the Water Department's Marketing Section at the earliest possible date. This section will be able to supply you with information on policy and procedure for relocating and/or extending water mains, arranging for taps from mains, and the potential water supply available at the two proposed sites.

The Statement alludes that water supply is available to both sites. This is correct. However, since we do not have the flow rates and pressures necessary to supply the new mint, I cannot comment on the adequacy of the existing distribution system to serve both locations.

The estimated quantity of water necessary for both industrial and domestic use, the quality and quantity of return flow to the sanitary sewer system are of major concern to this agency.

Please be assured that the Water Department will cooperate with the Department of Treasury during the relocation of the mint to either site. The requested information will be necessary to provide water service to you.

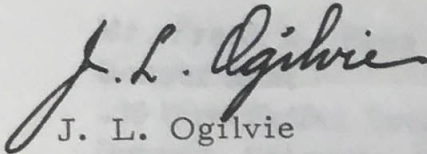
March 20, 1974

Page 2

Mr. Frank Rhea, Facilities Proj. Mgr.
Denver Mint

If I can supply any additional information, please contact this Department
at any time.

Sincerely,



J. L. Ogilvie
Manager

JLO/sn

In response to the Draft Environmental Impact Statement dated February 21,
1974 on the construction of the new United States Mint in Denver, Colorado,
I am herewith giving you for your use and information a position statement developed
by the Denver Chamber of Commerce and adopted by the Board of Directors
on March 18, 1974.

The Chamber feels very strongly that the Mint should be located in the
Park Hill area and that the Environmental Impact Statement is perhaps unduly
negative in view of the benefits accruing from the Park Hill location. This is
especially true with respect to the economic advantages of traffic, shopping
and highway access to the Park Hill site. We believe that the close study
of the two sites will reveal that the Park Hill site has as much, if not more
to offer in these areas than any other proposed alternative.

I hope that you will give this position statement every consideration in making
your report to the Board concerning the location of the new United States Mint.

Sincerely,



J. L. Ogilvie
Manager

JLO

Enclosure



Denver
Chamber of
Commerce

April 8, 1974

Mr. Frank W. Rhea
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

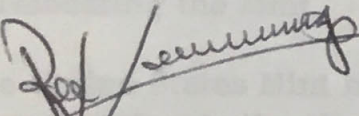
Dear Frank:

In response to the draft Environmental Impact Statement dated February 27, 1974 on the construction of the new United States Mint in Denver, Colorado, I am forwarding for your use and information a position statement developed by the Denver Chamber of Commerce and adopted by our Board of Directors on March 19, 1974.

The Chamber feels very strongly that the Mint should be located at the Park Hill site and that the Environmental Impact Statement is perhaps unduly negative in some of its comments concerning the Park Hill location. This is especially true with respect to the comments concerning traffic congestion and highway access at the Park Hill site. We believe that the closer study of the two sites will reveal that the Park Hill site has as much, if not more to offer in those areas than the other proposed alternative.

I hope that you will give this position statement every consideration in making your report to Mrs. Brooks concerning the decision on the relocation of the United States Mint.

Sincerely,


Rex Jennings
President

RJ: cd

Enclosure

DENVER CHAMBER OF COMMERCE
POSITION STATEMENT
RELOCATION OF THE UNITED STATES MINT
March 14, 1974

The Denver Chamber of Commerce, after an examination of the issues, recommends relocation of the United States Mint to the northwest corner of Park Hill Golf Course. The need to relocate this facility offers the Bureau of the Mint a rare opportunity to stabilize a model racially integrated community, to reverse the trends of urban sprawl and flight from the central city and obtain an excellent site for its operations. The Park Hill site has easy access, available housing, excellent transportation facilities, a pleasant environment with a commanding view of the mountains, and an enthusiastic receptive community. Its location in the City of Denver is important from a historical and traditional viewpoint.

The Chamber feels that the economic stabilization, aesthetic qualities and prestige of the Mint's physical location in the community are the main factors to be considered in choosing between the alternate sites. These factors clearly favor Park Hill. The community has a potential work force for the 400 new jobs that will be created after completion and the many employment opportunities available during the construction period. It's struggling retail and service businesses will be aided by the influx of money and people to the area. The presence of the dignified Mint building near the green, open space of the Park Hill Golf Course will be a source of pride for residents of the area.

The environmental impact of relocating to the Park Hill site would be minimal and far overshadowed by the benefits of choosing that site. Based on both the draft Environmental Impact Statement and studies done by the State Air Pollution Control Division, location of the Mint at Park Hill would result in less net additional vehicle miles traveled (VMT) than any other site. Furthermore, the Park Hill area is fully developed and unlikely to face the increased congestion and demands for services resulting from rapid population growth in suburban counties. The Chamber is confident that federal and state strategies for reducing air pollution and congestion in Denver and the Denver Air Quality Control Region will meet with success in the coming years and dampen the already small environmental impact of relocating the Mint.

The United States Mint has long been identified with Denver. Original plans to relocate the Mint on the South Platte River, which the Chamber supported, were designed to maintain that identification and provide an economic and aesthetic boost to an area of the central city. By locating the Mint at Park Hill, those goals can still be achieved. The Chamber urges the Bureau of the Mint to locate the new Mint at the proposed Park Hill site.



Office of the City Administrator

1580 YARROW STREET
LAKEWOOD, COLORADO 80215
TELEPHONE 233-8371

March 22, 1974

Mr. Frank Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 W. Colfax Avenue
Denver, CO 80204

Dear Mr. Rhea:

Thank you for your letter of March 6, 1974 to Mayor James Richey containing a copy of the revised Environmental Impact Statement relative to the location of the proposed new Mint. The purpose of this letter is to advise you of the process that will be followed by the City of Lakewood in formally responding to your letter and furnishing you comments by April 22, 1974.

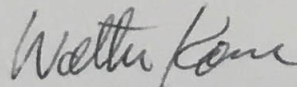
The City Council has instructed me to place copies of the Environmental Impact Statement on reserve at City Hall, a Public Library, and our Community Center, in order that the public might view copies of this report. Further, the public is requested to make any statements they might have concerning this proposed facility to the City Council at its meeting on April 8, 1974. On April 11, 1974 the City staff will present their comments to the City Council concerning the detailed study that has been made of the report. After the public hearing and the staff comments, the City Council intends to adopt a resolution on April 15, 1974 to set forth its official policy and response to the Environmental Impact Statement you submitted. I fully expect we will have our formal reply, along with Council's resolution, prior to April 22, 1974.

Mr. Frank Rhea
March 22, 1974
Page -2-

Please be assured that the public input comments that are being solicited by the City Council are not intended to substitute for any public hearings that you may elect to hold at a later date if the Federal Center site is selected for the Mint location. The purpose of receiving public comments is simply to give people an opportunity to speak on this question prior to our making any formal response to the report.

Thank you very much for giving us an opportunity to participate with you in giving you our comments in this important decision.

Yours truly,

A handwritten signature in cursive script, appearing to read "Walter Kane".

Walter Kane
City Administrator

WK/cmp

cc: Mayor James Richey

THE CITY OF
Lakewood



Office of the City Administrator

1580 YARROW STREET
LAKEWOOD, COLORADO 80215
TELEPHONE 233-8371

April 16, 1974

Mr. Frank Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 W. Colfax Avenue
Denver, CO 80204

Dear Mr. Rhea:

Since receiving the Environmental Impact Statement on two possible sites for relocation of the Denver Mint, the City of Lakewood has followed what we feel is a complete review procedure in order to respond adequately to your request for comments on this subject. We invited comments from the residents of our community to be expressed at the City Council meeting of April 8, 1974. In order that people could be properly apprised of the contents of the EIS, copies were made available at city hall, the library, and our community center.

At the City Council meeting when public comments were solicited, nine citizens appeared. Their comments were generally favorable, with some concern expressed about traffic and the need to properly deal with the impact additional vehicles would have on the streets around the Federal Center.

On April 11, 1974, a report from the City staff was submitted to City Council containing the results of comments from various City departments about the impact of relocating the Mint to the proposed Federal Center site. The staff comments were reviewed with the City Council and generally were agreed as adequately reflecting the City's concerns on specific issues in the Impact Statement.

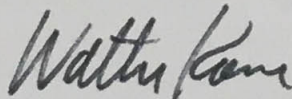
To: Mr. Frank Rhea
April 16, 1974

Page -2-

On April 15, 1974, at a special Council meeting, the City Council passed a resolution supporting the relocation of the Mint at the Federal Center site and requested that additional studies be performed on the subjects of traffic, transportation, and availability of low and moderate income housing, should the Federal Center site be selected. A copy of the resolution passed by the City Council is attached to this letter. The resolution references the memorandum from the City staff and, therefore, is included as our response to your request for comments on the relocation of the Mint. I believe that the resolution attached hereto adequately expresses the position of the City of Lakewood on this subject.

Thank you for the opportunity to comment on this important matter. On behalf of the City of Lakewood, we would welcome the opportunity of working with officials of the General Services Administration and the Bureau of the Mint in order to provide any further information necessary on this project.

Yours truly,



Walter Kane
City Administrator

WK/cmp
att.

cc: Mayor James J. Richey
City Council Members
Michael Norton, Regional Director, GSA

C E R T I F I C A T I O N

STATE OF COLORADO)
COUNTY OF JEFFERSON) ss
CITY OF LAKEWOOD)

I, Jean L. Rogers, City Clerk of the City of Lakewood, Colorado, do hereby certify that the attached is a true and correct copy of the RESOLUTION 74-111, A RESOLUTION REGARDING THE RESPONSE OF THE CITY OF LAKEWOOD TO DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT WITH RESPECT TO THE CONSTRUCTION OF A NEW UNITED STATES MINT AT THE DENVER FEDERAL CENTER SITE, PASSED BY COUNCIL BY A VOTE OF 10 FOR AND 0 AGAINST AT A SPECIAL MEETING ON APRIL 15, 1974.

as the same remains on file and record in the office of the City Clerk.

WITNESS my hand and seal of said City of Lakewood, Colorado, this 16 day of April, 1974.

Patricia A. Holstad, Deputy
City Clerk
City of Lakewood, Colorado

(SEAL)

C E R T I F I C A T I O N

STATE OF COLORADO)
COUNTY OF JEFFERSON) ss
CITY OF LAKEWOOD)

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as the same remains on file and record in the office of the City Clerk.

WITNESS my hand and seal of said City of Lakewood, Colorado, this 16 day of April, 1974.

Patricia A. Holstad, Deputy
City Clerk
City of Lakewood, Colorado

(SEAL)

C E R T I F I C A T I O N

STATE OF COLORADO)
COUNTY OF JEFFERSON) ss
CITY OF LAKEWOOD)

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as the same remains on file and record in the office of the City Clerk.

WITNESS my hand and seal of said City of Lakewood, Colorado, this 16 day of April, 1974.

Patricia K. Holstad, Deputy
City Clerk
City of Lakewood, Colorado

(SEAL)

A RESOLUTION

REGARDING THE RESPONSE OF THE CITY OF LAKEWOOD TO DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT WITH RESPECT TO THE CONSTRUCTION OF A NEW UNITED STATES MINT AT THE DENVER FEDERAL CENTER SITE.

WHEREAS, a Draft Revised Environmental Impact Statement has been prepared under date of February 27, 1974, by the Bureau of the Mint, Department of the Treasury, Denver Mint, relating to the construction of a new United States Mint at either the Park Hill Golf Course or the Denver Federal Center; and

WHEREAS, said Draft Environmental Impact Statement and the proposed Federal Center site location have been reviewed by the City Council of the City of Lakewood and the City of Lakewood staff, and particularly the Departments of Community Services and Community Development; and the City Council has received reports of such staff review, has conducted a Public Hearing April 8, 1974, at which public comments were received, has received and considered comments directed to the Council and individual members thereof by individuals and organizations within the City; and the City Council has further reviewed said Draft Environmental Impact Statement and the proposed Federal Center site at a study session of the City Council April 11, 1974, and at a Special Meeting of the City Council held April 15, 1974.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Lakewood, Colorado, that:

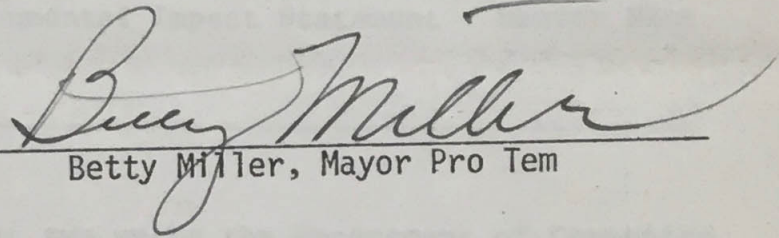
SECTION 1. The City Administrator be and is hereby authorized and directed to respond to the aforesaid Draft Revised Environmental Impact Statement relating to the location of the Mint at the proposed Denver Federal Center site by communicating to the Bureau of the Mint and the Department of the Treasury the official position of the City of Lakewood, hereby adopted, that the City favors and endorses the location of the Mint at the Federal Center site; and that the City requests further and additional environmental impact studies of traffic, public transportation and housing, to the end that potential problems which might otherwise arise in such areas by reason of the location of the Mint at the Federal Center site may be addressed and solved as a part of the process of the location of the Mint at such site.

SECTION 2. The City Administrator be and is further authorized and directed to transmit to the Bureau of the Mint, Department of the Treasury, a certified copy of this Resolution, together with a copy of a memorandum dated April 8, 1974, from Gary E. Latham, Director of the Department of Community Development, and Planning Director of the City of Lakewood, to City Administrator Walter Kane, a true copy of which is attached to this Resolution as Exhibit "A" and made a part hereof by this reference.

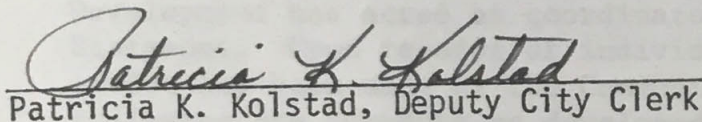
SECTION 3. The Mayor and City Administrator and all other officers and employees of the City of Lakewood are hereby authorized and directed to continue to cooperate with and furnish such assistance to the Bureau of the Mint and Department of the Treasury as may be necessary or desirable to enable such agencies to obtain such additional information as may be required for the

purpose of preparing additional, revised or final environmental impact statements relating to the location of the Mint at the Denver Federal Center site, and to assist and cooperate with the Bureau of the Mint and Department of the Treasury, and such other agencies as may be involved, in the solution of potential problems which might otherwise arise in connection with the location of the Mint at the Denver Federal Center site.

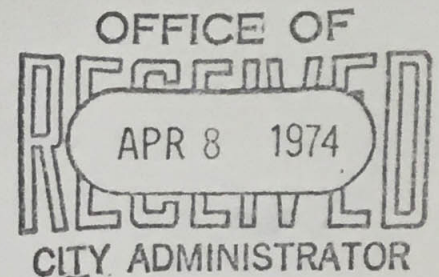
INTRODUCED, READ AND ADOPTED at a Special Meeting of the City Council on April 15, 1974, at 7 o'clock p.m. at Lakewood City Hall, 1580 Yarrow Street, Lakewood, Colorado.


Betty Miller, Mayor Pro Tem

ATTEST:


Patricia K. Kolstad, Deputy City Clerk

M E M O R A N D U M



April 8, 1974

To: Walter Kane, City Administrator

From: Gary E. Latham, Director, Department of Community Development

Subject: Analysis of the Draft Environmental Impact Statement - Denver Mint

During the course of the last two weeks the Department of Community Development has acted as coordinator for staff review of the referred Impact Statement. Upon receipt of individual Department or Division comments a review has been made by the Community Improvement Program Management Group. Following are comments as developed from this review:

1. It is the consensus that the revised draft Environmental Impact Statement, prepared by the Bureau of the Mint, dated February 27, 1974, has greatly satisfied the concerns of City staff that had previously been expressed upon review of an earlier draft. To this degree we commend the Treasury Department for examining previous deficiencies in their outline and including items to cover these deficiencies.

2. Staff review indicates virtually no disagreement with the statements made in the Environmental Impact Statement as it pertains to the Federal Center location being proposed. (I want to emphasize that we did not analyze the Park Hill site within the City and County of Denver, and in no way made our analysis on the basis of trying to prove or disprove the desirability of one site over the other. From a political standpoint we recognize that considerable emphasis will be placed on such comparison but feel that staff review should limit itself to a purely professional analysis of the effect this Environmental Impact Statement portrays the Federal Center site having on the City of Lakewood.)

3. Based upon the above comments, the staff feels that any adverse impacts on the City of Lakewood are of a nature that can be overcome during the development process. Many, in fact, are being overcome through other development in the area. The establishment of such a facility, as proposed, would constitute implementation of anticipated future development in this area as planned, rather than being contrary to such planning. Certainly, this type of facility would be in conformance to the long range plans of the City of Lakewood, both existing and proposed, as well as fitting into the long range plan for future land use as established by the Denver Regional Council of Governments.

4. As indicated, there are concerns that staff has expressed a need to see resolved. It is felt that answers to many of these concerns may very easily be made in the preparation of the final Environmental Impact Statement. Many others would certainly be the subject of continuous liaison, between the City of Lakewood and the Federal Government, as detailed site planning for this facility is undertaken, assuming the Federal Center site is ultimately chosen for the Mint. These concerns are as follows:

- a. The Impact Statement does not go into much detail as to the relationship of land uses surrounding this property to the Mint itself. It would be our opinion that development already in existence, or under planning, will provide a compatible relationship at this location.
- b. Although it is difficult to do so, we feel that some additional projections need to be made as to the effect of this facility on housing in the City of Lakewood, and particularly whether or not there might be some potential of coordination as it pertains to providing additional low or moderate income housing as may be needed.
- c. Staff feels certain that the Mint will have a tremendous benefit to the City of Lakewood economically. However, very little is expressed in the Environmental Impact Statement as to projected economic effect of a relocation to this site. This factor pertains to tourist expenditures as well as additional employment.
- d. It is felt that projections of volume and timing of future traffic to and from the Mint are accurate. It is suggested, however, that the Federal Government coordinate with the City of Lakewood as to evaluating general traffic circulation patterns throughout the Federal Center in total, as they affect peripheral streets.
- e. Through verbal discussion with Treasury officials, we have been given indication that additional impact on railroad activity will be extremely minimal. However, the Environmental Impact Statement does not specifically relate to the numbers or frequency of incoming rail cars to the Mint to satisfy its need for service. It is not anticipated that additional trains, or trains of substantial size, would be involved, however, this is not detailed.

- f. Factors relating to air quality appear to be entirely satisfied. However, some comment is made to the effect that a certain amount of steam and/or fog might be created as a by-product of the operation of the Mint. This subject of steam and fog is not elaborated upon to indicate whether or not they might be of sufficient quantity to create traffic impediments from the standpoint of either poor vision or icing of adjacent roads in adverse weather. This, of course, would be a concern at either proposed Mint location.
- g. The impact statement indicates that interior noise will be reduced to meet OSHA standards. Certainly this would satisfy our concern relative to noise. However, no data is given to evaluate how much problem there is in meeting such standards based upon noise factors in the existing Mint. In other words, is this a major concern to be met, or something which can be done very simply?
- h. We would hope that the Treasury Department would include within its Environmental Impact Statement a commitment that exterior noise standards, as developed by the City of Lakewood, will be met.
- i. No detail is given as to the intent of meeting concerns relative to controlling fugitive dust during construction. In that the Environmental Protection Agency is greatly concerned with this problem, we can assume that the Treasury Department intends to consider this problem.
- j. Indication is given that water used in manufacture will be recycled. We would hope that the Treasury Department would coordinate with the City of Lakewood in design of overflow or discharge facilities should occasion arise that such water must be discharged in quantity.
- k. The staff feels that elimination of solid waste will become an increasing concern to the metro area. Although the Impact Statement indicates the intention to recycle these wastes, there is no indication of either anticipated volume, or method of disposal, of those wastes considered non-recyclable. It would be suggested that the Treasury Department coordinate with the City of Lakewood in development of methodology to minimize this problem.

1. It would be suggested that strong consideration be given, during design of the proposed facility, to reduce the need for energy consumption. We are primarily concerned with need for heating and air conditioning being minimized, to the degree possible, by proper insulating methods which are being advocated for structures of all types throughout the City of Lakewood.

As you can see from these comments, many of our concerns could be met with provision of additional information. Additionally, many concerns relate to ultimate design and construction rather than establishment of a site.

In summary I would reiterate that it is staff position that minimal adverse impact will be created by this facility, and it would appear that proper concern be given to the above factors could likely eliminate them completely.

If you have further questions, or desire clarification of any of these comments, I would certainly coordinate with staff or P.M.G. in responding.



Gary E. Latham

GEL:sb



Department of Community Development

1580 YARROW STREET
LAKEWOOD, COLORADO 80215
TELEPHONE 232-0212

May 1, 1974

Mr. Frank Rhea
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

Please find attached the following documents relating to the City of Lakewood Noise Ordinance Standards:

1. Noise Ordinance
2. Noise Impact Assessment Form
3. District Noise Standards Enforcement and Design Guidelines
4. Example - Noise Impact Analysis

Identical with the State of Colorado Noise Law, the Industrial District Levels are found in Section 9.52.150 of the Lakewood Municipal Ordinance. The final Impact Statement should contain a section analogous to the information supplied in the example.

Our staff is available to aid you and your engineers in data gathering so that their recommendations and design concerning the Mint facility will meet the health and welfare guidelines set forth by the standards. This type of information should be incorporated into the draft EIS for the Federal Center Site.

Very truly yours,

A handwritten signature in cursive script that reads "Donald Y. Shanfelt". To the right of the signature, the initials "D.Y.S." are written in a smaller, more formal script.

Donald Y. Shanfelt
Environmental Control Officer

DYS:cmg

cc: Mr. Gary Latham, Director, Department of Community Development
Mr. Dannie Brindle, Environmental Specialist

Enclosures

Mr. Rhea,

District Levels

p. 5 9.52.150

Maximum Permissible
Sound Pressure Levels

Exceeds
Community Noise
6001021107000000

Lakewood has a defined role

Lakewood's present role is
anced economy but rather as a
vice employment center, and
ing employees to the more
enters of the region.

ecology
Raw water / wastewater
Energy

the city as a suburban bedroom com-
and given the likelihood of develop-
ries, it is a realistic goal to
nal property taxes and retail sales
ven the city's character, it is un-
shifting of the tax burden off the

0-73-70

A BILL FOR AN

ORDINANCE REPEALING AND REENACTING CHAPTER 9.52 OF THE LAKEWOOD MUNICIPAL CODE 1972, REGULATING NOISE AND SOUND PRESSURE LEVELS; AND AMENDING THE LAKEWOOD TRAFFIC CODE

Be it Ordained by the City Council of the City of Lakewood, Colorado, that:

SECTION 1. Chapter 9.52 of the Lakewood Municipal Code 1972 is hereby repealed and reenacted as follows:

SUBCHAPTER I. SHORT TITLE, POLICY AND GENERAL DEFINITIONS

9.52.010 SHORT TITLE. This ordinance shall be known as the Lakewood Noise Control Ordinance.

9.52.020 DECLARATION OF POLICY. It is hereby declared that at certain levels, noise is detrimental to public health, comfort, convenience, safety and welfare of the citizens of the City of Lakewood. This ordinance is enacted to protect, preserve and promote the health, welfare, peace and quiet of the citizens of Lakewood through the reduction, prohibition and regulation of noise. It is the intent of this ordinance to establish and provide for sound levels that will eliminate unnecessary and excessive noise, reduce traffic and community noise, and establish noise standards and sound levels that will promote a comfortable enjoyment of life, property, and conduct of business, and prevent sound levels which are physically harmful and detrimental to individuals and the community.

9.52.030 DEFINITIONS. The following definitions shall apply in the interpretation and enforcement of this chapter:

(1) "'A' weighted sound pressure level" means the sound pressure level as measured with the sound level meter using the "A" weighting network. The standard unit notation is dB(A).

(2) "Commercial purpose" shall mean and include the use, operation, or maintenance of any sound amplifying equipment for the purpose of advertising any business, any goods, or any services, or for the purpose of attracting the attention of the public to, or advertising for or soliciting the patronage of customers to or for any performance, show, entertainment, exhibition, or event, or for the purpose of demonstrating any such sound equipment.

(3) "Commercial District" shall mean the following: (a) An area where offices, clinics and the facilities needed to serve them are located; (b) An area with local shopping and service establishment; (c) A tourist oriented area where hotels, motels, and gasoline stations are located; (d) A business strip along a main street containing offices, retail businesses, and commercial enterprises; (e) Other commercial enterprises and activities which do not involve the manufacturing, processing

June 28, 1973

or fabrication of any commodity. "Commercial District" shall include, but not be limited to, any parcel of land zoned as a Restricted Commercial-One District, a Restricted-Commercial District, a Commercial-One District or a Commercial-Two District under the Zoning Ordinance of the City of Lakewood.

(4) "Construction activities" shall mean any and all activity incidental to the erection, demolition, assembling, altering, installing or equipping of buildings, structures, roads or appurtenances thereto, including land clearing, grading, excavating and filling.

(5) "Device" shall mean any mechanism which is intended to produce or which actually produces sound when operated or handled.

(6) "Dynamic braking device" shall mean a device used primarily on trucks for the conversion of the motor from an internal combustion engine to an air compressor for the purpose of braking without the use of wheel brakes.

(7) "Emergency work" is work made necessary to restore property to a safe condition following a public calamity, or work required to protect persons or property from an imminent exposure to danger or potential danger.

(8) "Industrial District" shall mean an area in which enterprises and activities which involve the manufacturing, processing or fabrication of any commodity are located. "Industrial District" shall include, but not be limited to, any parcel of land zoned as an Industrial Trade-One District, an Industrial Trade-Two District, an Industrial Trade-Three District or an Industrial Trade Four District under the Zoning Ordinance of the City of Lakewood.

(9) "Motor vehicle" shall mean any vehicle such as, but not limited to, a passenger vehicle, truck, truck-trailer, trailer or semi-trailer propelled or drawn by mechanical power, and shall include motorcycles, snowmobiles, minibikes, go-carts, and any other vehicle which is self-propelled.

(10) "Muffler" shall mean an apparatus consisting of a series of chambers or baffle plates designed for the purpose of transmitting gases while reducing sound emanating from such apparatus.

(11) "Non-commercial purpose" shall mean the use, operation or maintenance of any sound amplifying equipment for other than a commercial purpose. "Non-commercial purpose" shall mean and include, but shall not be limited to, philanthropic, political, patriotic and charitable purposes.

(12) "Plainly audible" shall mean that the information content of sound is unambiguously transferred to the auditor, such as, but not limited to, understanding of spoken speech, comprehension of raised or normal voices, or comprehension of musical rhythms.

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(13) "Residential District" shall mean an area of single or multiple-family dwellings and shall include areas where multiple unit dwellings, high-rise apartments and high density residential districts are located. "Residential District" shall also include, but is not limited to, hospitals, nursing homes, homes for the aged, schools, courts and similar institutional facilities. "Residential District" shall include, but not be limited to, land zoned as a Residential One District, a Residential One-A District, a Residential One-B District, a Residential Two District, a Residential Three-A District, a Residential-Three District, a Residential-Four District, or a Residential Trailer District under the Zoning Ordinance of the City of Lakewood.

(14) "Sound amplifying equipment" shall mean any machine or device for the amplification of a human voice, music, or any other sound, or by which the human voice, music or any other sound is amplified.

(15) "Sound level meter" shall mean an instrument or apparatus including a microphone, an amplifier, an output meter, and weighting networks for the measurement of sound pressure. The output meter reads sound pressure level when properly calibrated, and the instrument is of type 2 or better, as specified in the American National Standards Institute Publication S1.4-1971, or successor publications.

(16) "Sound pressure level" shall mean 20 times the logarithm to the base 10 of the ratio of the root mean square pressure of a sound to the reference pressure, which is 20×10^{-6} Newtons per meter squared.

(17) "Unnecessary noise" means any excessive or unusually loud sound or any sound which disturbs the peace and quiet of any neighborhood or which does annoy, disturb, injure or endanger the comfort, repose, health, peace, or safety of any person, or causes damage to property or business.

(18) All technical terminology used in this ordinance, unless the context otherwise requires, shall be defined in accordance with American National Standards Institute (ANSI) publication S1.1-1960, revised 1971, or successor publications of ANSI, or its successor bodies.

SUBCHAPTER II. PROHIBITED NOISE--GENERAL PROHIBITION

9.52.040 UNLAWFUL TO MAKE. It shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any unnecessary noise within the City of Lakewood as heard without measurement or as heard and measured in the manner prescribed in Section 9.52.150 of this Chapter.

9.52.050 UNLAWFUL NOISES GENERALLY. The following acts, enumerated in Sections 9.52.060 through 9.52.130, are declared to cause unnecessary noises in violation of this chapter; provided, however, that the following enumeration is not in limitation of Section 9.52.040, and is not exclusive.

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9.52.060 BELLS AND CHIMES. It shall be unlawful for any person to use, operate, cause or permit to be sounded any bell or chime or any device for the production or reproduction of the sounds of bells or chimes, from any church, clock or school, between the hours of 10 p.m. of one day and 7 a.m. of the following day.

9.52.070 RADIOS, TELEVISION SETS, PHONOGRAPHS, AND SIMILAR DEVICES. (1) Use Restricted. It shall be unlawful for any person to use, operate or permit to be played any radio receiving set, musical instrument, television, phonograph, drum or other machine or device for the production or reproduction of sound in such a manner as to cause to be made or continued any unnecessary noise as heard without measurement or as heard and measured in the manner prescribed in Section 9.52.150.

(2) Prima facie violation. The operation of any such set, instrument, television, phonograph, machine or device at any time in such a manner as to be plainly audible at either the property line, or 25 feet in the case of a vehicle on public rights of way, shall be prima facie evidence of a violation of this section.

(3) This section shall not apply to any person who is participating in a school band or in a parade for which a permit has been issued by the City of Lakewood.

9.52.080 ANIMALS OR BIRDS. No person shall keep or maintain or permit the keeping of, on any premises owned, occupied or controlled by such person, any animal or bird otherwise permitted to be kept, which by frequent or habitual howling, barking, meowing, squawking, or other noise unreasonably disturbs the peace and quiet of any neighborhood or causes discomfort or annoyance to any person.

9.52.090 EXHAUSTS--MUFFLERS. No person shall discharge into the open air the exhaust of any steam engine, stationary internal combustion engine, air compressor equipment, motor boat, motor vehicle, or other power device, except through a muffler or other noise reducing device, which is in good order and free of defects.

9.52.100 DEFECT IN VEHICLE OR LOAD. It shall be unlawful for any person to operate, or cause or permit to be operated or used, any automobile, truck, motorcycle or other motor vehicle so out of repair, so loaded or in such a manner as to cause to be made or continued any unnecessary noise as heard without measurement or as heard and measured in the manner prescribed in Section 9.52.150.

9.52.110 QUIET ZONE. The creation of any unnecessary noise is prohibited within the vicinity of any school, institution of learning, church or court while the same are in use or session, which unreasonably interferes with the workings of such institution, or within the vicinity of any hospital, nursing home or home for the aged, or which disturbs or unduly annoys patients in the hospital

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or residents in the nursing home or home for the aged, provided conspicuous signs are displayed in adjacent, surrounding or contiguous streets indicating that the same is a school, hospital, nursing home, home for the aged, church or court.

9.52.120 DYNAMIC BRAKING DEVICES. No person shall operate any motor vehicle with a dynamic braking device engaged which is not properly muffled.

9.52.130 TRUCKLOADING. No person shall load any garbage, trash on compactor truck, or any other truck, whereby the loading, unloading or handling of boxes, crates, equipment or other objects is conducted within a residential district nor within three hundred (300') feet of any hotel or motel between the hours of 10 p.m. and 7 a.m.

SUBCHAPTER III. PROHIBITED NOISE SOUND LEVEL STANDARDS

9.52.140 ACTS AND VIOLATION. Any act in violation of the following sections, enumerated 9.52.150 through 9.52.210 is deemed to be in violation of 9.52.040 without in any way limiting the generality of the provisions of Section 9.52.040.

9.52.150 MAXIMUM PERMISSIBLE SOUND PRESSURE LEVELS. The maximum permissible sound pressure levels of any steady source of sound shall be as herein established for the time period and district listed in Table A of this section. This includes, but is not limited to, sound from such activities as production, processing, cleaning, servicing, testing, operating, or repairing either vehicles, materials, goods, products or devices. Sound pressure levels in excess of those established for the districts of the City, in times herewith listed, shall constitute prima facie evidence that such sound is an unnecessary noise. Sound pressure levels shall be measured at the approximate location of the property line or the boundary of the public way, at a height of at least four (4) feet above the immediate surrounding surface, on a sound level meter of standard design and operated on the "A" weighting network.

T A B L E A

<u>District</u>	Sound Pressure Level Limit dB(A)	
	Day	Night
	<u>7 a.m. - 10 p.m.</u>	<u>10 p.m. - 7 a.m.</u>
Residential	55	50
Commercial	60	55
Industrial	80	75

When a noise source can be identified and its noise measured in more than one district, the sound pressure level limits of the most restrictive district shall apply.

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The sound pressure level limits and provisions hereof applicable to Residential Districts shall also apply to any parcel of land zoned Conservation District, under the Zoning Ordinance of the City of Lakewood.

The sound pressure level limits, and provisions hereof, applicable to Commercial Districts shall also apply to any parcel of land zoned Agricultural One District or Agricultural-Two District under the Zoning Ordinance of the City of Lakewood.

The provisions of this section shall not apply to motor vehicles operating on public rights of way; any bell or chime or any device for the production or reproduction of the sound of bells or chimes from any church, clock or school; the loading of any truck; domestic power equipment except as provided in Section 9.52.200; and commercial power equipment except as provided in Section 9.52.210.

9.52.160 CONSTRUCTION ACTIVITIES. Except as otherwise provided in this ordinance, no person shall engage in, cause or permit any person to be engaged in construction activities in any residential or commercial district between the hours of 9 p.m. of one day and 6 a.m. of the following day.

Construction projects shall be subject to the maximum permissible noise level specified for industrial districts for the periods within which construction is to be completed pursuant to any applicable building permit.

Construction activities directly connected with the abatement of an emergency are excluded from the provisions of this section.

9.52.170 ENCLOSED PLACES OF PUBLIC ENTERTAINMENT. The operating, or permitting to be operated of any sound amplifying equipment or other noise source in any enclosed place of public entertainment shall be subject to the following provisions. When individuals are subjected to sound levels and exposure durations exceeding those shown in Table B, when measured on a sound level meter of standard design and operated on the "A" weighting network, feasible administrative or engineering controls shall be utilized to protect against the effects of such noise exposure.

T A B L E B

<u>Duration per day, hours</u>	<u>Sound level dBA slow response</u>
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

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9.52.180 VEHICLE REPAIRS OR TESTING. The repairing, building, rebuilding, or testing of any truck, automobile, motorcycle or other motor vehicle within the City shall be subject to the maximum permissible sound pressure level for the district in which the source is located.

9.52.190 MACHINERY, EQUIPMENT, FANS AND AIR CONDITIONERS. Operating any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device within the City shall be subject to the maximum permissible sound pressure level for the district in which the source is located.

9.52.200 DOMESTIC POWER EQUIPMENT. No person shall operate or permit to be operated on private property or on the public way within any residential or commercial district(s) any power equipment rated five (5) horsepower or less and used for home or building repair or grounds maintenance between the hours of 10 p.m. of one day and 7 a.m. of the next day or operate or permit to be operated between the hours of 7 a.m. and 10 p.m. any such power equipment which emits a noise sound pressure level in excess of eighty (80) decibels in the "A" weighting network dB(A). Such power equipment shall include, but not be limited to, lawn mowers, garden tools, snow removal equipment, electric or chain saws or any other power equipment used for home or building repair or grounds maintenance. Noise sound pressure levels shall be measured at a distance of twenty-five (25) feet from the noise source.

9.52.210 COMMERCIAL POWER EQUIPMENT. No person shall operate on any property within a residential or commercial district(s) or on any public way within a residential or commercial district(s), any power equipment rated more than five (5) horsepower, excluding construction equipment used for construction activities, such as but not limited to, chain saws, pavement breakers, log chippers, riding tractors, powered hand tools, between the hours of 10 p.m. of one day and 7 a.m. of the next day or within residential, commercial or industrial noise districts between the hours of 7 a.m. and 10 p.m. which emits a noise level in excess of eighty-eight (88) decibels, in the "A" weighting network dB(A). Noise sound pressure levels shall be measured at a distance of twenty-five (25) feet from the noise source.

SUBCHAPTER IV. AMPLIFIED SOUND

9.52.220 AMPLIFIED SOUND. (1) It shall be unlawful for any person to install, use or operate a loudspeaker or sound amplifying equipment in a fixed or movable position or attached to or mounted upon any motor vehicle, within a Residential District of the City of Lakewood, for the purposes of giving instructions, directions, talks, addresses or lectures, or for transmitting music or sound to any persons or assemblages of persons; provided, however, that a permit as described in Section 9.52.230 may be applied for for activities such as, but not limited to, concerts, speeches or lectures held in public parks of the City.

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(2) It shall be unlawful for any person to install, use or operate a loudspeaker or sound amplifying equipment in a fixed or movable position or attached to or mounted upon any motor vehicle, within a Commercial or Industrial District of the City of Lakewood, for the purposes of giving instructions, directions, talks, addresses or lectures, or for transmitting music or sound to any persons or assemblages of persons without first obtaining a permit from the City as described in Section 9.52.230.

(3) The provisions of this section shall not apply to authorized emergency vehicles, as defined in Section 10.75.020 of Lakewood Municipal Code 1972, when such authorized emergency vehicles are responding to an emergency call or when in pursuit of an actual or a suspected violator of the law, or when responding to but not upon returning from a fire alarm.

(4) The provisions of this section shall not apply to any bell or chime or any device for the production or reproduction of the sound of bells or chimes from any church, clock or school.

9.52.230 PERMIT INFORMATION. An applicant for a permit shall provide the following information:

- (1) The name, address and telephone number of both the owner and user of the sound amplifying equipment.
- (2) The license number of the sound truck which is to be used;
- (3) The general description of the sound amplifying equipment which is to be used;
- (4) Whether the sound amplifying equipment will be used for commercial or non-commercial purposes; and
- (5) The dates upon which, and the streets over which the equipment is proposed to be operated.

9.52.240 PERMIT ISSUANCE. Said permit shall be issued unless the City Clerk finds that the conditions of motor vehicle movement or pedestrian movement are such the use of the equipment would constitute an unreasonable interference with traffic safety, or that the applicant for the permit cannot or will not comply with the provisions of Section 9.52.250.

9.52.250 REGULATION GOVERNING SOUND AMPLIFYING EQUIPMENT. The commercial and non-commercial use of sound amplifying equipment shall be subject to the following regulations:

- (1) The sound amplifying equipment shall be operated only between the hours of 7:30 a.m. and 6 p.m. of each day except

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on Sundays and legal holidays. The operation of sound amplifying equipment for commercial purposes on Sundays and legal holidays shall be permitted only between the hours of 10 a.m. and 4 p.m.

- (2) The maximum sound emanating from sound amplifying equipment shall not exceed the sound pressure levels established in Section 9.52.150 as measured 25 feet from the noise source.
- (3) In any event, the intensity of sound shall be so controlled that it will not be unreasonably loud, raucous, annoying, disturbing or a nuisance to any person or persons.
- (4) The provisions of this section shall not apply to any bell or chime or any device for the production or reproduction of the sound of bells or chimes from any church, clock or school.

SECTION 2. Section 10.03.050 of the Lakewood Municipal Code 1972 is hereby amended to read as follows:

10.03.050 APPLICATION. This title shall apply to every street, alley, sidewalk area, driveway, park and to every other public way or public parking area, either within or outside the corporate limits of this municipality, the use of which this municipality has jurisdiction and authority to regulate. The provisions of Section 10.18.010, 10.18.020, 10.45.120, 10.57.080, 10.60.160, 10.60.170 and 10.69.030, of this title, concerning careless driving, reckless driving, unauthorized devices, mufflers, vehicle noise, stationary vehicle noise, and accident investigation, respectively, shall apply not only to public places and ways but also throughout this municipality. Additionally, the provisions of the sections regarding stopping, standing and parking, where official signs are posted giving notice of stopping or standing, parking or other restrictions or prohibitions as authorized in Section 10.60.090 and described in traffic-control schedules or official records as provided in Section 10.69.120 shall apply at all places within this municipality provided that such official signs have been placed with the permission of the owner or person entitled to possession of other than public places and ways. For the purposes of this application, whenever official traffic-control devices are placed in position approximately conforming to the requirements of this title, such devices shall be presumed to have been so placed by the official act or direction of lawful authority and with the permission of the owner or person entitled to possession of the area concerned, unless the contrary shall be established by competent evidence.

SECTION 3. There is hereby added to the Lakewood Municipal Code 1972 Section 10.57.080, which is to read as follows:

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10.57.080 MUFFLERS--PREVENTION OF NOISE. (1) It shall be unlawful for any person to operate, or for the owner to cause or knowingly permit the operation of any vehicle or combination of vehicles, within this municipality, which is not equipped with an adequate muffler in constant operation and properly maintained to prevent any unnecessary noise, and no such muffler or exhaust system shall be modified or used with a cutoff, bypass or similar device. No person shall modify the exhaust system of a motor vehicle in a manner which will amplify or increase the noise emitted by the motor of such vehicle above that emitted by a muffler of the type originally installed on the vehicle.

(2) For the purposes of this section, the definitions contained in Section 9.52.030 of the Lakewood Municipal Code shall be applicable.

SECTION 4. There is hereby added to the Lakewood Municipal Code 1972 Section 10.60.160, which is to read as follows:

10.60.160 MOTOR VEHICLE NOISE. (1) It shall be unlawful for any person to drive or move or for the owner to cause or knowingly permit to be driven or moved, within this municipality, any motor vehicle which emits a noise sound pressure level in excess of the dB(A) established by subparagraphs (2) and (3) of this section. Noise from a motor vehicle within the public right-of-way shall be measured at a distance at least twenty-five feet from the near side of the nearest traffic lane being monitored and at a height of at least four feet above the immediate surrounding surface on a sound level meter of standard design and operated on the "A" weighting scale. Noise from a motor vehicle which is located other than within the public right-of-way shall be measured at a distance at least twenty-five feet from said motor vehicle and at a height of at least four feet above the immediate surrounding surface on a sound level meter of type 2 or better, as specified in the American National Standards Institute Publication S1.4-1971, or successor publications, and operated on the "A" weighting network.

(2) Motor vehicles weighing less than 10,000 pounds, manufacturer's gross vehicle weight (GVW). Any motor vehicle with a weight of less than 10,000 pounds, manufacturer's gross vehicle weight (GVW), or any combination of motor vehicles towed by such motor vehicle shall not emit a noise sound pressure level in excess of 80 decibels in the "A" weighting network dB(A).

(3) Motor vehicles weighing 10,000 pounds or more, manufacturer's gross vehicle weight (GVW). Any motor vehicle which weighs 10,000 pounds or more, manufacturer's gross vehicle weight (GVW), or any combination of motor vehicles towed by such motor vehicle shall not emit a noise sound pressure level in excess of 88 decibels in the "A" weighting network dB(A).

(4) Subparagraphs (2) and (3) of this section shall apply only to vehicles traveling on streets with a posted speed limit of forty-five (45) miles per hour or less.

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(5) For the purposes of this section, the definitions contained in Section 9.52.030 of the Lakewood Municipal Code 1972 shall be applicable.

SECTION 5. There is hereby added to the Lakewood Municipal Code 1972 Section 10.60.170, which is to read as follows:

10.60.170 STANDING MOTOR VEHICLES. (1) It shall be unlawful for any person to operate or cause or knowingly permit to be operated any motor of a motor vehicle which weighs 10,000 pounds or more, manufacturer's gross vehicle weight (GVW), or any combination of motor vehicles towed by such motor vehicle, which remains stationary for a consecutive period longer than five minutes when such a vehicle is in a residential district.

(2) For the purposes of this section, the definitions contained in Section 9.52.030 of the Lakewood Municipal Code 1972 shall be applicable.

SECTION 6. There is hereby added to the Lakewood Municipal Code 1972 Section 10.60.180, which is to read as follows:

10.60.180 HORNS AND SIGNALLING DEVICES. No person shall sound any horn or signalling device on any truck, automobile, motorcycle, or other vehicle on any street or highway within this municipality, except as a danger warning, and then only for a reasonable period of time.

SECTION 7. Undue Hardship. Applications for a permit for relief from the sound pressure levels designated in this ordinance, or regulations designated in this ordinance, on the basis of undue hardship, may be made to the City Clerk. Any permit granted by the City Clerk hereunder shall contain all conditions upon which said permit has been granted and shall specify a reasonable time that the permit shall be effective. The City Clerk may grant the relief as applied for only if he finds:

- (1) That additional time is reasonably necessary for the applicant to alter or modify his activity or operation to comply with this ordinance; or
- (2) That the activity, operation, or noise source will be of temporary duration, and cannot be done in a manner that would comply with this ordinance; and
- (3) That no other reasonable alternative is available to the applicants.
- (4) The City Administrator may prescribe any reasonable conditions or requirements he deems necessary to minimize adverse effects upon a community or the surrounding neighborhood.

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SECTION 8. Rules and Regulations. The City Administrator is hereby authorized to adopt and promulgate rules and regulations deemed necessary for the proper and effective enforcement of the provisions of this ordinance. Such rules and regulations shall be consistent with the provisions of this ordinance and the standards established herein.

SECTION 9. Emergencies. Noise caused in the performance of emergency work for the immediate safety, health or welfare of the community or individuals of the community, or to restore property to a safe condition following a public calamity shall not be subject to the provisions of this ordinance.

SECTION 10. Additional Remedy-Injunction. As an additional remedy, and not in lieu of any other remedy available under the Lakewood Municipal Code 1972 or otherwise, the operating or maintaining of any noise source in violation of any provision hereof and which causes discomfort or annoyance to reasonable persons of normal sensitiveness or which endangers the comfort, repose, health or peace of residents in the area shall be deemed and is declared to be a public nuisance and may be subject to abatement by a restraining order or injunction issued by a court of competent jurisdiction.

SECTION 11. Enforcement Personnel. In addition to the employees and officers regularly required to enforce City ordinances generally, the City Administrator shall assign duties of enforcement to personnel trained in noise control techniques and procedures and equipped with calibrated sound level meters.

SECTION 12. Method of Enforcement of the Ordinance (1) Violation of this ordinance in which the noise source is not self-propelled, or if self-propelled, not customarily used or designed for transportation upon a public right-of-way, shall be cause for summons and complaint to be issued forthwith; provided, however, that in lieu of summons and complaint enforcement personnel may issue a 24-hour notice, or other reasonable amount of time not to exceed five days, signed by the City Administrator or his duly authorized representative, in writing, which may be served personally or by certified mail to the last known address of the person to whom addressed, with return receipt requested, directed to the owner, occupant, person or persons in charge of or in control of the machine, device, building or other premises to abate said violation of this ordinance. Failure to comply with the order so issued and served shall constitute a violation of this ordinance.

(2) Violation of this ordinance in which the noise source is a motor vehicle as defined in this ordinance shall be cause for summons and complaint to be issued forthwith. This subparagraph (2) shall not apply to machines or devices not customarily used or designed for transportation.

SECTION 13. Severability. If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portions hereof.

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SECTION 14. This ordinance shall take effect thirty (30) days after final publication.

INTRODUCED, READ AND PASSED on first reading at a regular meeting of the City Council on July 9, 1973; ordered published in full in the Lakewood Sentinel and Public Hearing and consideration on final passage set for July 23, 1973, at 7 o'clock p.m. at Lakewood City Hall, 1580 Yarrow Street, Lakewood, Colorado.

PASSED, as amended, by a vote of 9 for and 0 against at a regular meeting of the City Council on final consideration July 23, 1973, at 7 o'clock p.m. at Lakewood City Hall, 1580 Yarrow Street, Lakewood, Colorado.

James J. Richey, Mayor

ATTEST:

Jean L. Rogers, City Clerk

I. DATA

DATES:

Receipt by Division _____
Site Inspection _____
Pre-Development Conference _____
Final Review _____

CASE INFORMATION:

Case No. _____
Zone Requested _____
Census Tract _____
Planning Area _____
Receipt Received "Pencil Sketch" _____
Received Detail Plan _____

1. Name of Development: _____ Type: _____ Acres: _____
2. Applicant: _____ Address: _____ Telephone: _____
3. Contact: _____

II. INSTRUCTIONS:

Ratings: Based on a scale of 1 to 5 (where 1 equals unacceptable, 3 = adequate, 5 = ideal) the ratings reflect the degree to which a proposed development meets the regulations, goals and objectives of the Environmental Control Division with respect to control of excessive and detrimental noise in the community.

Policy: A rating of any criteria below 3 is automatically cause for review of that criteria before proceeding with the development or development planning.

CATEGORY	CRITERIA	EVALUATION	RATING
----------	----------	------------	--------

III. COMMUNITY NOISE ENTERING SITE

- | | | | |
|--|------------|-------|-------|
| A. Vehicular | 1. Present | _____ | _____ |
| | 2. Future | _____ | _____ |
| B. Non Vehicle (i.e. Industry, ballpark, school, etc.) | | _____ | _____ |
| | | _____ | _____ |

References:

- A. Housing and Urban Development (HUD)
NOise Assessment Guidelines (1390.2)

- B. City of Lakewood Noise Ordinance
District Levels

IV. DEVELOPMENT NOISE LEAVING SITE

- A. Construction Phase

CATEGORY

CRITERIA

EVALUATION

RATING

- B. Operational Phase (Occupancy)

Reference: A,B - City of Lakewood Noise Ordinance (all).

V. Interior (Structural and design)

- A. Residential (Listing design features)

1. _____
2. _____
3. _____
4. _____
5. _____

- B. Commercial & Industrial (list design features)

1. _____
2. _____
3. _____
4. _____
5. _____

Reference: A, B - Occupational Safety and Health
Act, City of Lakewood Noise Ordinance (all).

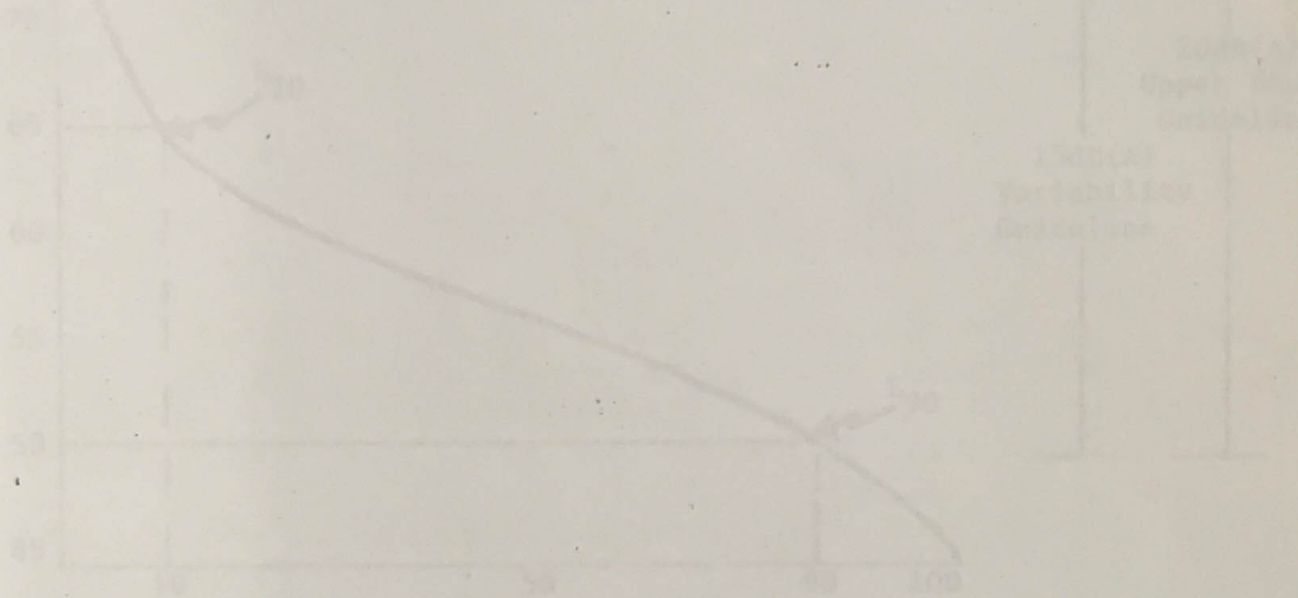
VI. DATA SUBMITTAL AND SITE REVIEW

- A. Data submittal will be required of all developers for both pre-planning and final detail phases.
- B. Site review information gathered by the Environmental Control Division personnel will be necessary, and attached to this form.

VII. POST CONSTRUCTION VERIFICATION

VIII. PROBLEM AREA COMMENTS

IX. RECOMMENDATIONS



Given a comparison to which (1) the source can be identified and (2) an appropriate monitoring time can be selected, the following will occur:

- A. The L_{90} measured at this property line is greater than the Maximum Level (ML).

$$L_{90} > ML$$

- B. The variability ($L_{10} - L_{90}$) exceeds 15 dB(A) in range (1) $L_{10} \geq ML$.

$$\text{if } L_{10} \leq ML, L_{10} - L_{90} > 15 \text{ dB(A)}$$

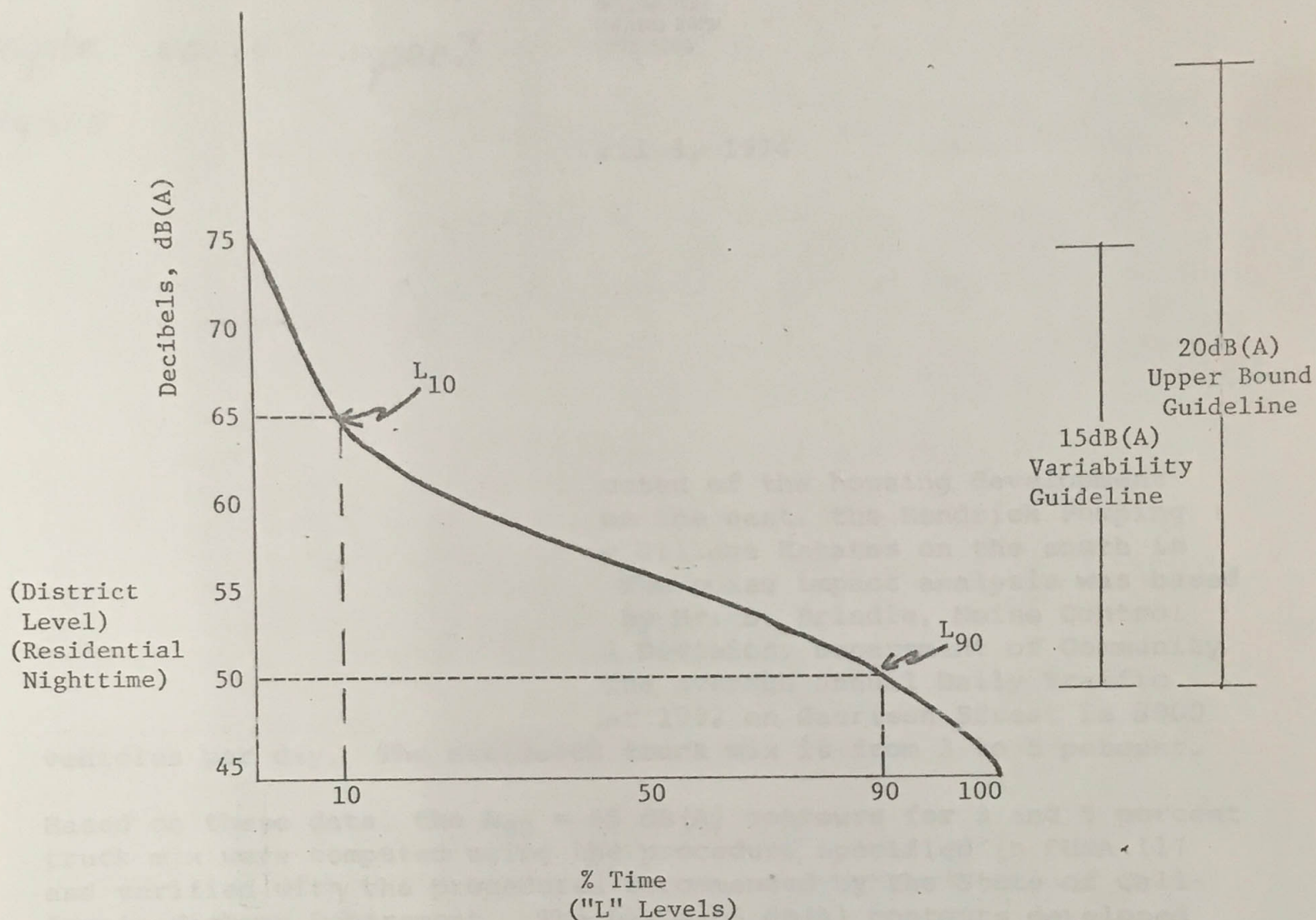
- C. The measured level (ML) exceeds 55 dB(A) over the ML at any time.

$$ML > ML + 55 \text{ dB(A)}$$

1-11-74
DYS:lm

DISTRICT NOISE STANDARDS

Enforcement Guidelines



ENFORCEMENT: Given a complaint in which (1) the source can be identified and (2) an appropriate monitoring time span can be selected, enforcement will occur if:

- A. The L_{90} measured at the property line is greater than the District Levels (DL).

$$L_{90} < DL_{p.1.}$$

- B. The variability ($L_{10} - L_{90}$) exceeds 15 dB(A) in range (if $L_{10} \geq DL$).

$$\text{if } L_{10} \geq DL, L_{10} - L_{90} < 15\text{dB(A)}$$

- C. The measured level (ML) exceeds 20 dB(A) over the DL at any time.

$$ML \leq DL + 20\text{dB(A)}$$

Specifically, the following noise control methods are required.

1. All windows in the impact area must be double glazed, thermopane or storm windows.
2. All outside doors in the impact area must be solid case with weather seal.

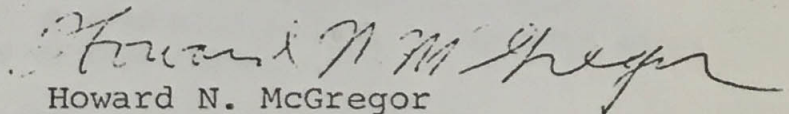
The following noise control methods are suggested but their implementation may depend upon many factors unknown at this time.

1. Maintain as small as possible gradient on Garrison Street at the south end of the development.
2. Depress Garrison Street below grade as much as possible.
3. Construction of berms along Garrison Street
4. Avoid traffic interruption devices to eliminate start and stop traffic which increases the noise level.
5. Restriction of truck traffic to only daytime operations.

Original copies of the analysis work sheets used to compute the noise impact are on file in our Littleton office and will be released only with your approval.

If we may be of any further assistance to you please contact me at our Littleton office.

Very truly yours,
ENGINEERING DYNAMICS, INC.


Howard N. McGregor
Registered Professional Engineer
State of Colorado



55 Wadsworth Blvd. • Lakewood, Colorado 80226 • Phone (303) 233-5555

April 15, 1974

Mr. Frank W. Rhea
Denver Mint
320 W. Colfax Ave
Denver, Colorado 80204

Dear Mr. Rhea:

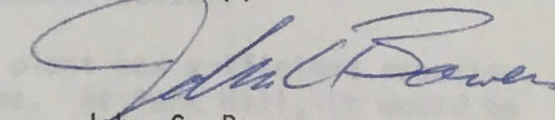
The Lakewood Chamber of Commerce has received a copy of the Environmental Impact Statement on the proposed re-location of the Denver Mint. This document has been thoroughly studied by a special Chamber Task Force. The comments contained in this letter have been prepared by the Task Force and approved by our Board of Directors.

Our organization, as the following statement indicates, fully supports the re-location of the Mint to the Federal Center, and we pledge our full cooperation to you in making such a move. We represent more than 625 business and professional firms in this area.

The attached statement was prepared in response to the Environmental Impact Statement, with comments added regarding the potential social and economic impact on the community. It was presented at a meeting of the Lakewood City Council, but we also wish to have it recorded among the statements you are collecting on this issue.

Thank you for your consideration.

Sincerely,


John C. Bowers
Executive Vice President

JCB/as
Encl.

April 1, 1974

POLICY STATEMENT - UNITED STATES MINT LOCATION
LAKEWOOD CHAMBER OF COMMERCE

The Lakewood Chamber of Commerce, through its U. S. Mint Task Force, has carefully reviewed all available information regarding the possible location of the United States Mint at the Federal Center in Lakewood.

It is the opinion of the Task Force and the Chamber's Board of Directors that the positive factors involved in relocating the Mint in Lakewood far outweigh the negative factors.

The Environmental Impact Statement prepared by the Bureau of the Mint indicates that this location would have little or no adverse impact on the environment of our community. The statement makes the following points:

- I. Locating the Mint in the Federal Center would be consistent with land use plans of the City of Lakewood and the Denver Regional Council of Governments. We quote from page 8, "It is believed, on balance, that locating the new Mint at this proposed site would be a beneficial land use in conformance with plans, policies and controls for the affected area.
- II. Mint employee traffic generally would be counterdirectional to the mass of rush-hour traffic movements, which would result in a minimum impact on traffic congestion in the area. Widening of Union Street to six lanes should result in an overall decrease in peak-hour congestion in that area.
- III. The addition of 800 Mint employees to the already existing employment base of over 6,000 people in the Federal Center will justify early development of improved public bus routes to serve the area, which should result in a decreased use of private automobiles. The location of a PRT station near the Mint site will also make public transit more attractive to Mint employees and visitors. The statement draws the conclusion that, and we quote, "Although the net Vehicle Miles traveled caused by Mint traffic for the Federal Center site probably would be greater than for Park Hill, it is considered that the net adverse impact on air quality would be less with the new Mint located at the Federal Center."
- IV. The Federal Center central heating plant has sufficient capacity available to serve the proposed Mint. At Park Hill, it would be necessary to construct a heating plant for the new Mint only. This would result in an additional stationary source of pollution in an area where the air pollution level is already high, as well as adding substantially to the cost of the project.

- V. Because the relocation of the Mint to the Federal Center would be a relatively short move, and because most new employees would come from the existing metro area work force base, there would not be a sudden influx of new residents into the Lakewood area. In all probability, the effects of this move would have no noticeable impact upon the growth of the city. The predicted addition of only 150 pupils to the school system seems adequate testimony to this fact.
- VI. The Federal Center site is already owned by the Federal Government, so no land would be taken from the public tax rolls.
- VII. Tourist traffic would occur between 9 a.m. and 3 p.m. daily, and would not affect peak-hour traffic congestion. Because of its location between Denver and the mountains, Lakewood streets presently carry a high volume of tourist traffic. Location of the Mint here in all probability would not significantly increase this traffic. It would, however, cause a certain percentage of it to stop here with some positive effect on the city's economy.
- VIII. The new Mint will not become fully operational until 1980. This provides sufficient time for federal, state, and local agencies to adequately plan and prepare for the impact that this facility will have on our city.

Our organization feels that the environmental impact statement states quite clearly that location of the U. S. Mint in Lakewood would cause no significant ill-effect on the environment of our community.

However, causing "no significant ill-effect on the environment of our community" is not reason enough alone to support the selection of Lakewood as the site for the Mint. We believe the relocation of the U. S. Mint to Lakewood would be a great asset to our city. We think the benefits of having the Mint here should be considered by the citizens of Lakewood and the governing body of the city.

Since the incorporation of Lakewood in 1969, many of us have struggled to develop a sense of community identity and community pride. Community pride would combat the apathy we have experienced in local elections and on local issues, and we believe it would help make our city a better place to live.

We think that being one of only three cities in the United States to have a U. S. Mint located within its boundaries would be good reason for community pride, and could help create a distinct identity for our city.

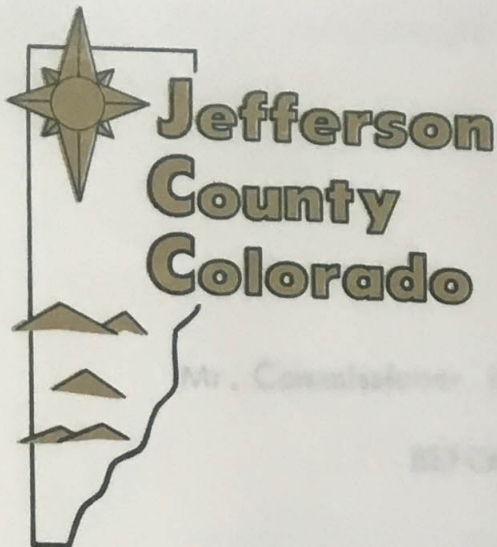
The U. S. Mint is the top tourist attraction in the metro area, and second in the state only to the Air Force Academy. We feel Lakewood residents would take great pride in their city being the home of the Mint, and it would certainly make people outside the city aware of Lakewood, Colorado.

While the Mint would create a minimum demand for municipal services, it would result in considerable additional revenue to the city.

It is logical to assume that some portion of the Mint's \$5 million annual payroll will be spent in Lakewood. Two cents of each dollar so spent would go into the city treasury as sales tax, and would lessen the burden on the Lakewood Homeowner-taxpayer by that much. An additional one-half cent would go into the County's Open Space Acquisition Fund.

The same holds true for each new tourist dollar that would be spent here. Regardless of where within the city the payroll or tourist dollar is spent, every resident shares in the proceeds through the sales tax collected. This will help our city government keep its property tax mill levy low.

In summary, it is our position that relocating the Mint in Lakewood would prove highly beneficial to our community. We encourage the City Council to fully support the proposed Federal Center Mint site, and pledge our cooperation in making this proposal become a reality.



BOARD OF COUNTY COMMISSIONERS

HAL ANDERSON
District No. 1 Arvada

BOB CLEMENT
District No. 2 Lakewood

JACK L. TREZISE
District No. 3 Golden

April 19, 1974

Mr. Walter Kane
City Administrator
City of Lakewood
1580 Yarrow
Lakewood, Colorado 80215

Dear Walt:

Attached is a Resolution passed by the Board of County Commissioners in support of the Denver Mint being built on the Federal Center property at 6th & Union.

It is the hope of the Board of County Commissioners that this Resolution will be of benefit to the City of Lakewood in their efforts to get the approval of the new Denver Mint.

If we can be of any further assistance to you, do not hesitate to contact this office.

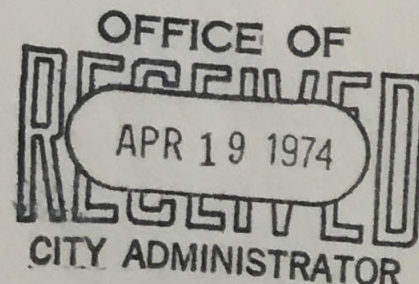
Very truly yours,

BOARD OF COUNTY COMMISSIONERS
JEFFERSON COUNTY, COLORADO

By: Karl G. Williams

Karl G. Williams
County Manager

KGW/jt
attachment



Mr. Commissioner Trezise moved that the following Resolution be adopted:

BEFORE THE BOARD OF COUNTY COMMISSIONERS

OF THE COUNTY OF JEFFERSON

STATE OF COLORADO

RESOLUTION NO. CC74-51

RE: Relocation of United States Mint, Denver, Colorado.

WHEREAS, the Draft Revised Environmental Impact Statement has been made under the date of February 27, 1974, by the Bureau of the Mint, Department of the Treasury, Denver Mint, relating to the construction of a new United States Mint at either the Park Hill Golf Course or the Denver Federal Center; and

WHEREAS, the Board of County Commissioners has reviewed the Revised Environmental Impact Statement; and

WHEREAS, the Jefferson County Planning staff has also reviewed the Revised Draft of the Environmental Impact Statement for the locations considered for the new United States Mint; and

WHEREAS, after review by both the Board of County Commissioners and the Jefferson County Planning staff, we find that the proposed location on the Federal Center property is in accord with the City of Lakewood Master Plan and also the Denver Regional Council of Governments Master Plan; and

that due to the

Mr. Commissioner Trezise moved that the following Resolution be adopted:

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OF THE COUNTY OF JEFFERSON

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WHEREAS, the Board of County Commissioners has reviewed the Revised Environmental Impact Statement; and

WHEREAS, the Jefferson County Planning staff has also reviewed the Revised Draft of the Environmental Impact Statement for the locations considered for the new United States Mint; and

WHEREAS, after review by both the Board of County Commissioners and the Jefferson County Planning staff, we find that the proposed location on the Federal Center property is in accord with the City of Lakewood Master Plan and also the Denver Regional Council of Governments Master Plan; and

WHEREAS, it is the feeling of the Board of County Commissioners that due to the location of the Federal Center and the availability of ground at no cost to the Federal Government, due to the fact that it is on government property, and no basic impact significant that would cause any particular problem as to this location as far as environmental conditions;

NOW, THEREFORE, BE IT RESOLVED that the Board of County Commissioners of Jefferson County, Colorado, supports the Resolution of the City of Lakewood in the relocating of the new United States Mint at the location of the Federal Center at 6th Avenue and Union; and

BE IT FURTHER RESOLVED that the Board of County Commissioners also supports by this Resolution the relocation of the new Denver Mint at the location of the Federal Center; and

BE IT FURTHER RESOLVED that a copy of this Resolution be forwarded to each of the members of the Colorado delegation in the United States Congress.

Mr. Commissioner Anderson seconded the adoption of the foregoing Resolution. The roll having been called, the vote was as follows:

Mr. Commissioner Jack L. Trezise	- "Aye"
Mr. Commissioner Hal Anderson	- "Aye"
Mr. Commissioner Robert F. Clement, Chairman	- "Aye"

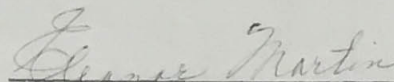
The Resolution was adopted by unanimous vote of the Board of County Commissioners of the County of Jefferson, Colorado.

DATED: April 19, 1974

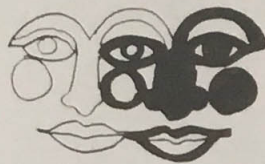
CERTIFICATION

STATE OF COLORADO)
) ss:
COUNTY OF JEFFERSON)

I, Norman C. Allen, County Clerk and Recorder and Clerk to the Board of County Commissioners of the County of Jefferson, Colorado, certify that the preceding is a true copy of a resolution adopted at a special meeting of said Board of County Commissioners held on April 19, 1974.

 (Deputy)
County Clerk and Recorder and
Clerk to the Board

SEAL



Frank W. Rhea
Facilities Project Manager
Denver United States Mint
320 W. Colfax
Denver, Colorado 80204

Dear Mr. Rhea,

We are pleased to have been asked to comment on the location of the new Denver Mint.

As the attached statement shows, Greater Park Hill Community, Inc., is unequivocally in favor of locating the U.S. Mint on the Park Hill Golf Course.

Our comments take issue with many points in the Draft Revised Environmental Impact Statement on Construction of New United States Mint, Denver, Colorado, issued by your office and dated February 27, 1974, (hereafter EIS). Some of these points involve issues of fact, others involve issues of judgment. We have organized our comments into five classes which may be summarized as follows:

1. The air pollution measurements cited are not the best available and all but irrelevant to the Park Hill location; and the air pollution impact question is far more complex than the EIS suggests.
2. The commuter Vehicle Miles Traveled, (hereafter VMT) model is grossly inadequate in that it fails to allow for substantially Lower Housing density in Lakewood than in Denver. This factor alone could cause the increase in VMT associated with moving to Lakewood to be almost double that associated with moving to Park Hill, and hence, greater air pollution impact. The Lakewood location would lead to at least 4860 additional VMT and Park Hill, 2790.
3. The VMT model is further inadequate in that it fails to allow for the location of minority groups in Denver. The lack of minority residents in Lakewood might either substantially increase VMT or destroy the Mint's Affirmative Action Plan if the Mint moves to Lakewood.
4. The EIS implies that schools and transportation are marginally more adequate in Jefferson County than in Denver, when, on balance, the reverse is true.
5. Most important, the EIS ignores the opportunity offered by the Mint relocation. This is the opportunity to provide a ringing federal endorsement of an integrated community and to act as a catalyst for further environmental improvement in Park Hill. While supporting the core city of Denver, locating the Mint in Park Hill can help this unique community in its efforts to stabilize and rejuvenate itself, and to prove to the nation that an integrated community can work.

Frank W. Rhea

Page 2

We thank you for the opportunity to comment on the EIS and we look forward to the chance to welcome you formally to our community at the dedication of the new Denver Mint.

Sincerely,

Louis Jones
Chairman/GPHC

John Morris
Physical Planner

Jules Mondschein
Chairman/Planning Committee

GREATER PARK HILL COMMUNITY, INC.

Comments on

CONSTRUCTION OF NEW

UNITED STATES MINT

DENVER, COLORADO

DRAFT REVISED ENVIRONMENTAL IMPACT STATEMENT

Greater Park Hill Community, Inc. has been requested to comment on the Environmental Impact Statement for the New Denver Mint dated February 27, 1974 (hereafter EIS). We have organized our comments into 5 classes which may be summarized as follows:

1. The air pollution measurements cited are not the best available and all but irrelevant to the Park Hill location; and the air pollution impact question is far more complex than the EIS suggests.
 2. The commuter Vehicle Miles Traveled, (hereafter VMT) model is grossly inadequate in that it fails to allow for substantially Lower Housing density in Lakewood than in Denver. This factor alone could cause the increase in VMT associated with moving to Lakewood to be almost double that associated with moving to Park Hill, and hence, greater air pollution impact. The Lakewood location would lead to at least 4860 additional VMT and Park Hill, 2790.
 3. The VMT model is further inadequate in that it fails to allow for the location of minority groups in Denver. The lack of minority residents in Lakewood might either substantially increase VMT or destroy the Mint's Affirmative Action Plan if the Mint moves to Lakewood.
 4. The EIS implies that schools and transportation are marginally more adequate in Jefferson County than in Denver, when, on balance, the reverse is true.
 5. Most important, the EIS ignores the opportunity offered by the Mint relocation. This is the opportunity to provide a ringing federal endorsement of an integrated community and to act as a catalyst for further environmental improvement in Park Hill. While supporting the core city of Denver, locating the Mint in Park Hill can help this unique community in its efforts to stabilize and rejuvenate itself, and to prove to the nation that an integrated community can work.
- I. A major distinction that the EIS makes between the Park Hill site and the Lakewood site is that the air is more polluted near the Park Hill site and therefore estimation of 3780 additional Vehicle Miles Traveled (VMT) per day would have a greater adverse impact than 5580 additional VMT in Lakewood. This claim is insufficiently documented and inaccurate for the following reasons:
- a. The measurements given are for 1970 and cover suspended particulates only, omitting both Carbon Monoxide and Hydrocarbons. There is no tight relationship between these classes of air pollution and all must be reduced, not just one.

b. The Denver Station is at 414 Tremont Street, 2 blocks from the old mint site, almost in the center of downtown Denver, but almost 100 feet lower (pollution flows downhill) and 4 miles away from the Park Hill site. Given that Park Hill is a single family residential district with relatively little traffic, the readings published in the EIS are all but irrelevant. A measuring station does exist at 5105 E. 38th Avenue which would at least give a better estimate of particulate pollution than the downtown site.

c. The major pollution source associated with the Mint location is not the Mint itself, but the traffic to the Mint. Hence measurements at the site of the new Mint are only part of the story. We can expect the primary route to the Lakewood site to be along the Sixth Avenue Freeway from Denver to the Federal Center. Similarly, the primary route to the Park Hill site will be Colorado Boulevard from Colfax to the Park Hill site. It is hard to model the impact of this air pollution on the Denver area.

Both routes have one end about two miles from the S. Platte River and the other end 4-6 miles from the River. (The S. Platte River valley often has the highest air pollution counts in Denver.) The average distance from the River to the Park Hill commuting route is perhaps one mile less than the distance from the River to the Lakewood route, but the Lakewood route is upwind from the River valley. Hence, locating in Lakewood may or may not damage the air condition in Lakewood, but it will add to air pollution in the band of high pollution along the S. Platte River. In contrast, prevailing winds would tend to blow air pollution from the Park Hill route into the Rocky Mountain Arsenal and out of the urban area.

d. Moving to the suburban (Lakewood) site in order to escape central city air pollution is the decision that private firms have been making for years. The result of such decisions is today's situation with pollution covering vast basins and threats of federal action if we don't clean up. But we can't clean up because centers of employment are too scattered to be well served by public transportation. Commutation is complicated for those who cannot afford or do not choose to live in the particular suburb to which their employer flees. In this connection, the EIS notes that only 39 of 461 employees now choose to live in Lakewood. This, despite the fact that Lakewood is the most convenient suburb to the current Mint site. The additional commuting imposed on all but a few of the Mint employees will lead to additional air pollution in the metropolitan area. It is just this kind of decision that has made Denver one of the six most polluted cities in the U.S.

II. The model used for estimating VMT fails to include the major variable of available housing units. This model is specified on p. 9. According to the EIS, 50 per cent of current employees reside within a 5-mile radius of the existing mint, and this would remain the case for the new mint (except that the center of residence would shift only one-half the distance to the new mint.) This model fails to note that the location of people is related to the availability of housing units; in a lower density area, people will spread out farther. A five-mile radius circle centered on the existing mint includes almost 2/3 of the area of Denver and half of Lakewood. This area contains houses (about 400,000 people) or 33% of the population of the 1970 Standard Metropolitan Statistical Area (SMSA). A move to Park Hill would leave 300,000 people within five miles of the site or 25% of

the SMSA. A move to the Lakewood site would reduce the population within 5 miles to about 170,000 or 14% of the SMSA. If people are distributed over housing units rather than square miles, this difference in density alone is sufficient to increase commuter VMT substantially at the Lakewood site over the Park Hill site.

If the average commuting distance to the old Mint is 6 miles,

The expected average distance to any new site is

$$6 \text{ mi.} \times \frac{\text{old site pop. density}}{\text{new site pop. density}}$$

The average distance to Park Hill, based on housing density, is

$$6 \times \frac{400,000}{300,000} = 6.9 \text{ mi.}$$

The average distance to Lakewood based on housing density, is

$$6 \times \frac{400,000}{170,000} = 9.2 \text{ mi.}$$

These trip lengths combined with the EIS assumptions about number of trips to the New Mint leads to:

(Trip length x no. trips to New Mint) - Current VMT = Additional VMT

Additional VMT to Park Hill site: $(6.9 \times 900) - 3420 = 2790$

Additional VMT to Lakewood site: $(9.2 \times 900) - 3420 = 4860$

Thus, eventually, when the labor force is centered on the New Mint site (if driving declines from 62% of all commuting to 56%, as EIS specifies), the Lakewood site would generate almost twice as many additional VMT as the Park Hill site. If the center of residence moves only half-way to the new site as suggested in the EIS, this would increase the difference between the two sites in VMT still further. Any offset between the center of residence and the Mint site adds VMT to our figures.

The EIS omits any comment on the impact of its location on Tourist VMT. We are unable to model this except to say that the peripheral location of Lakewood relative to the SMSA and to the airport, hotels, and other tourist attractions is likely to increase VMT for tourists at least proportionately to commuter VMT.

The number of additional VMT implied by relocating in Lakewood is thusly large enough to argue strongly against choosing that site.

III. All the figures in section II. assume a totally non-discriminatory housing market in which all people choose their housing based solely on general availability and proximity to work. A more realistic model would consider where the Mint's actual labor force is likely to live and this is related to the economic and ethnic make-up of the Mint labor force.

Pay at the Mint is close to Denver's average family income, but \$2500 below Lakewood's average.¹ Median price for houses listed in Multiple Listing and sold in the Lakewood area in recent months is about \$33,000., less than 20% of these houses sold below \$30,000. These prices disqualify more than 90% of all Mint

1. R.H. Anderson and K.H. Flaming, "CITIZEN SURVEY as a MEANS of CITIZEN INVOLVEMENT in COMMUNITY DECISION MAKING: THREE CASES" Pacific Sociological Ass'n., Mar. 1974

employees from moving to within 5 miles of the Federal Center unless they have substantial additional income.

The existing Mint is one of Denver's better employers of minority persons. According to Frank Rhea, the Mint's labor force is close to 10% black, and 15% Chicano, reflecting Denver's ethnic make-up. The three sites differ markedly in proportion of the SMSA minority populations within 5 miles commuting distance.

MINORITY POPULATION WITHIN 5 MILES

	NUMBER	% of SMSA CHICANOS	NUMBER	% of SMSA BLACKS
Existing Site	100,000	70	35,000	70
Park Hill Site	50,000	35	45,000	90
Lakewood Site	15,000	11	500	1

Jefferson County has the smallest per cent minority population of the 5 major counties in the SMSA; (4% as compared to Denver County's 26%). The City of Lakewood is typical of Jefferson County in this respect; (4.7% minority vs. Denver City's 26%, 0.1% Black vs. Denver's 9.1%).

The Mint's moving to Lakewood could have one of three results:

- It could integrate Lakewood. Given the success of the Federal Center itself in integrating Lakewood, this seems most unlikely. At the very least, moving minority employees to Lakewood would require substantial relocation assistance, both economic and personal support, for the Mint's employees.
- Minority employees could continue to work for the Mint and live in Denver. This would both increase Vehicle Miles Traveled to Lakewood and create a hardship for minority employees.
- Minority employees could cease to work for the Mint. This would eliminate all past gains made through Affirmative Action, totally neutralizing that program. For those who doubt this effect, we suggest reading John F. Kain's article "Housing Segregation, Negro Employment and Metropolitan Decentralization" in The Quarterly Journal of Economics, May 1968.

IV. Public Facilities

The EIS focuses on two types of Public facilities, schools and transportation. In discussing schools, the EIS badly under-estimates the impact on the Jefferson County schools caused by moving the Mint to Lakewood. (Lakewood is only part of this school's district). Currently only 39 employees live in Lakewood and a few more live in other parts of Jefferson County. This number is almost negligible. Under either the EIS model or ours, a majority of the projected 800 Mint employees will eventually live in Jefferson County. These employees might have upwards of 400 children in Jefferson County Schools (EIS predicts only 150). Jefferson County is one of only two school districts in the Denver urban area that is still growing rapidly. They have some schools on double and triple sessions, including the high school near the Federal Center. 350 additional pupils at 30 per class would require construction of 11-2/3 additional classrooms, plus associated support facilities. Both Denver and Adams County, where these people might live if the Park Hill site is chosen, have excess space and declining enrollments.

The 350 pupil impact on schools is derived as follows. In the EIS model, the center of residence moves 4 miles west from the current Mint site to a point in Jefferson County, a few blocks west of Sheridan Boulevard. With a circular distribution, one-half the employees will be west of this point in Jefferson County and one-half east of the point, some of whom would still be in Jefferson County. In our model, even more would locate in Jefferson County unless housing discrimination interfered. Therefore, we take 400 employees as a minimum estimate of those locating in the Jefferson County Schools District. Subtracting an estimated current figure of 50 leaves 350 additional employees growth in Jefferson County. In Jefferson County there is roughly one school child per household, hence, 350 employees are likely to produce 350 pupils. We are unable to see how the EIS reached its conclusion about 150 pupils.

With regard to transportation, there are two categories: public and private (auto). The EIS states that there are four shifts at the mint. Using projected employment, these will be:

Shift I	Blue collar	7 a.m.- 3 p.m.	225 employees	125 cars
Shift II	" "	3 p.m.-11 p.m.	225 "	125 "
Shift III	" "	11 p.m.- 7 a.m.	225 "	125 "
Shift IV	White collar	8 a.m.- 4:30 p.m.	125 "	70 "

In the old Mint, all shifts are served by public transit. At the Park Hill site, Shifts I and IV are directly served via route 15, and there is service via route 64, six blocks away, for the remaining shifts. Minor modifications in bus service would provide good public transit access for all four shifts.

At the Lakewood site, public transit now consists of three morning buses and three afternoon buses, none of which would serve the blue collar employees. Minor changes in the Mint schedule would serve Shift I, but major changes would be necessary to serve Shifts II and III. Such changes prior to inauguration of the PRT system are not financially feasible. The reason for this is that the Federal Center is predominantly a one-shift operation dominated by the private automobile. It generates little or no traffic except between 7 and 8 a.m., and between 4 and 5 p.m.

The PRT, if built, will improve public transit at both sites. As currently planned, the PRT will stop at Colfax Avenue and Colorado Boulevard, with frequent bus service north to the Park Hill Mint site. Another PRT stop will be near the Federal Center, perhaps one-half mile from the Mint site with a possible shuttle bus to serve the Mint site itself. There are no current plans of which we are aware to serve either site directly with PRT stops, but either site may be the target of an expansion of the PRT system.

In sum, then, right now and for the next ten years, the Park Hill site has at least twice the public transportation access that the Lakewood site has. Neither the EIS nor our model allows for the lack of public transit in Lakewood in determining commuter vehicle miles traveled. The EIS actually assumes that the percent of employees driving will decline from 62% to 56% with the move.

With reference to private transportation, the EIS makes two significant statements regarding rush hour traffic. First, it is implied that Colorado Boulevard in Park Hill is inadequate, "saturated during peak traffic periods" (p. 10 of the EIS statement). It should be noted that there is no need for the Mint's peak to coincide with other peak traffic and that Colorado Boulevard accomodates 20,000 more vehicles per day 8 miles farther south with essentially the same design. Hence the peak hour load of 250 cars for this site is unlikely to cause a major problem.

Second, "the Mint employee traffic (at the Lakewood site) generally would be counter-directional to the mass of such hour movements" (p. 11 of the EIS). With one shift leaving as the next shift arrives, it is hard to understand how the Mint traffic would have any general direction. The exception to this, of course, is the white collar shift, which is projected to arrive in 70 cars at 8 a.m. and leave at 4:30 p.m. This shift accounts for only 17.5% of employee traffic and includes the employees most likely to live west of the Mint and, hence, those most likely to move with the major traffic.

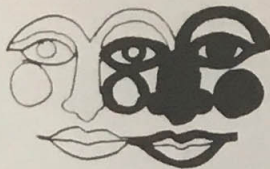
Thus, there appears to be little difference between the sites from the standpoint of automobile access except for those living near one site or the other. The big gainers at the Park Hill site are the minority employees from Northeast Denver and Adams County. The big gainers at the Lakewood site are the white collar employees, especially management, who live in Jefferson County and in the mountains. This issue thus boils down to whether the Federal Government wishes to give the fringe benefit of easy commutation to its poorest employees, those with the fewest choices, or to its richest employees, those who can afford to live in western Jefferson County.

V. Community Development

The EIS concentrates on negative environmental impacts which in this case are minor. We have discussed above, a substantial labor market impact - the difficulty minority employees will encounter if they must commute to the Federal Center. We regard the Mint, however, in far more positive terms than this discussion implies.

This is the Denver Mint, a major installation of the U.S. Government and Colorado's largest single tourist attraction. As such, it is regarded by both the Denver and Lakewood communities as a major prestige item. In a humorous vein, we note the proposal to change the name of the Mint to the Lakewood Mint and place an "L" on every coin in order to give that city its missing sense of identity. Park Hill would, at least, offer to keep the Denver Mint in Denver!

More seriously, making a major investment of this sort in Park Hill says that "the United States Government believes in integration." Rejection of Park Hill would, of course, say the reverse - "the U.S. Government does not believe." During the fifteen years in which Park Hill has become the oldest and largest integrated community in America, we have observed no significant public physical investment in our community except destructive street widening to permit others to drive through Park Hill faster. There is a substantial body of folklore which says, "That's the way things are. Public enterprise does not invest in black or even partly black neighborhoods." The Decision on the Denver Mint location is a chance to disprove the folklore. Doing so will help this unique community in its efforts to stabilize and rejuvenate itself and to prove to the nation that an integrated community can work.



Mr. Frank W. Rhea
Facilities Project Manager
Denver United States Mint
320 W. Colfax Avenue
Denver, Colorado 80204

Dear Mr. Rhea:

The comments on the Environmental Impact Statement on the Mint which we sent you recently, contained some typographical errors which we would like to correct. They are:

p.4 8th line from bottom: "shift"
(f was omitted)

p.5 Mathematical formulae:

$$6 \text{ mi.} \times \sqrt{\frac{\text{old site pop. density}}{\text{new site pop. density}}}$$

$$6 \times \sqrt{\frac{400,000}{300,000}} = 6.9 \text{ mi.}$$

$$6 \times \sqrt{\frac{400,000}{170,000}} = 9.2 \text{ mi.}$$

(square root sign was omitted)

p.8 3rd line from bottom: "disprove"
(i should be o)

In addition we have received data on particulate pollution at stations closest to the two sites for the last four years. Not only are they far closer than is asserted in the Mint E.I.S., they show a strong trend. If this trend continues, the Lakewood site will have higher pollution counts than Park Hill by 1975 and substantially higher pollution when the Mint opens in 1979.

Measurements of Suspended Particulates

(from Air Pollution Control Division)

DATE	LAKEWOOD	PARK HILL	DIFFERENCE
		79.6	19.3
1970	60.3	84.0	13.0
1971	71.0	74.0	3.0
1972	71.0	78.0	6.0
1973 (estimate)	72.0	77	-3
1975 (projected)	80	75	-21
1979 (projected)	96		

LEAGUE OF WOMEN VOTERS OF DENVER

2200 W. ALAMEDA AVE. NO. 15
DENVER, COLORADO 80223
PHONE 935-3581

April 19, 1974

Frank W. Rhea
Bureau of the Mint
Facilities Project Manager
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Dear Colonel Rhea:

Thank you for the opportunity to review the Environmental Impact draft statement for the proposed new Denver Mint. Our critique of this document will concentrate on three areas of impact: the core city, the Park Hill community and the physical environmental factors relating to pollution and transportation.

The Federal Government, through its various agencies, has been striving to save the core cities of America. The removal of the U.S. Mint from Denver to the suburbs would deal a severe psychological blow to Denver. At a time when the city is struggling with school integration problems, the potential loss of Mint employee children to overcrowded Lakewood schools undermines the goal of equal educational opportunity for all. It would be distressing for the Federal Government to fulfill prophecies of "white flight to the suburbs." Denver is currently engaged in a survival struggle over certain recent annexations which some suburban communities, Lakewood included, are protesting. The Clayton Trust location is part of the Greater Park Hill community, a thriving integrated neighborhood where people of varied ethnic and socio-economic backgrounds live and work together. The U.S. Mint, as a highly visible representative of the Federal Government, could show that a city with this kind of community is favored by federal installations for providing equal opportunities in housing, employment and education.

The positive influence of locating the U.S. Mint in Park Hill would instigate both an upgrading of present commercial enterprise in the area and be an incentive for new business. In addition, the relocation of the golf course along the eastern boundary of the present site would be beneficial to the adjacent residential area. Housing in the full range of size and price is available for present and future Mint employees without prejudice as to ethnic or socio-economic group. Altogether, we think the U.S. Mint would be an asset to Park Hill and that the Federal Government could lend its considerable positive influence to both an integrated community and a city striving to provide for all of its citizens.

A study of the environmental impact of choosing the Park Hill site shows that transportation to this location is already adequate with improvements projected if the U.S. Mint is constructed there. Rail service is excellent; bus service is present on Colorado Boulevard and would undoubtedly be expanded; auto access is excellent from I-70 and Colorado Boulevard. The

proposed PRT to the Federal Center is many years in the future while improved bus service to the Clayton Trust site could be implemented quite rapidly along existing routes.

We take issue with the air quality testing sample. We are not experts in the field, but we do question whether air samples taken downtown where pollutants are trapped in canyons of tall buildings are comparable to the open area at the Park Hill Golf Course. Certainly the number of auto miles travelled by employees would be greater to Lakewood than to Park Hill until a shift in employee home locations occurred, indeed if such a shift could take place to relatively expensive housing in Lakewood.

The dignity of the Clayton Trust site is most suitable for the Mint. The high ground ensures splendid views of a building from several approaches and offers magnificent mountain vistas from the site itself. The presence of airport-related tourist facilities nearby indicates that a prestigious building and the fine open vistas would not be missed by visitors to the area. Indeed, tourism in the city and the state could be significantly aided by such a facility.

In closing, we have written to Mrs. Brooks asking that public hearings be held to explore the merits of both sites. We would like to solicit your support in this effort. Thank you again for including the League of Women Voters of Denver in your request for comments on the Environmental Impact Statement.

Sincerely,

Mrs. Lorie Young

Mrs. Lorie Young, President

Margaret M. Walther

Margaret Walther

Sandra Drew

Sandra Drew

Co-Chairmen, Renewal of the City
Committee

cc: Mayor McNichols
Mrs. Brooks
Robert Koch, Council President

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

Department of Environmental,
Population and Organismic Biology

April 2, 1974

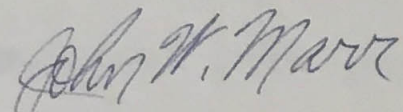
Mr. Warren F. Brecht
Assistant Secretary
Department of the Treasury
Washington, D.C. 20220

Dear Mr. Brecht,

We appreciate the opportunity to review the Draft Revised Environmental Impact Statement for the proposed new Denver Mint.

The draft appears to contain most of the pertinent information. We suggest that consideration be given to the possible influence of future "Open Space" needs of the Denver Metropolitan area. It appears that the Federal Center area is closer to the mountains and therefore has less urgent need for close-by open space and could, therefore, tolerate the loss of existing open space with less overall, long-term loss.

Sincerely yours,



John W. Marr, Ecologist
Professor of Biology

JWM:js

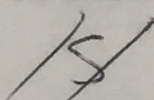
April 9, 1974

Dear Professor Marr:

Thank you for your comments of April 2 concerning this Department's draft revised EIS in re ~~the~~ the proposed construction of a new Denver Mint. Your letter is being forwarded to Mr. Frank W. Rhea who is the project manager in this matter for the Bureau of the Mint. Mr. Rhea is located in Denver at the following address:

Facilities Project Manager
Bureau of the Mint
Denver Mint
320 West Colfax Avenue
Denver, Colorado 80204

Sincerely,



Anthony V. DiSilvestre
Environmental Quality Officer

Professor John W. Marr
Department of Environmental
Population and Organismic Biology
University of Colorado
Boulder, Colorado 80302

cc: Mr. Rhea
Mr. Arnold

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

Department of Environmental,
Population and Organismic Biology

April 2, 1974

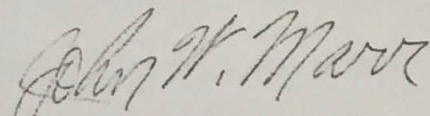
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Sincerely yours,



John W. Marr, Ecologist
Professor of Biology

JWM:js

2380 Ash
Denver, Colorado
March 22, 1974

Mrs. Mary Brooks
Director of U. S. Mint
Deleware and West Colfax
Denver, Colorado

Dear Mrs. Brooks,

Following a review of the environmental impact statement, a question and answer session with Mr. Frank Rhea, and discussions with Mr. John Henry, Mr. Jay Geiger (Denver Planning Office) and Mr. Dan Reed (Denver Parks and Recreation) I prepared the attached statement supporting the Denver Federal Center as the logical choice for the new Mint site.

I have discussed the matter with many people, residents of Park Hill and with others who are not. Unfortunately these people, who feel as I do, are unable to find proper media in which to express their views and may well be a "silent majority".

It is clear that a great many pressures are being exerted to influence your decision. Most of them, I fear are politically motivated. Yet, an important decision such as this must be based upon all of the pertinent factors involved, as I am sure you are aware.

The attached statement has been sent to the media, radio, TV and newspapers. It is an attempt on my part to express the opinion of the people I have talked to, and to present an analysis of the facts. I hope it will be useful to you in your deliberations and that the final decision will give proper weight to the environmental considerations and economic aspects as well as the sociological.

Sincerely,

Elmer L. Metcalfe /S/

FEDERAL CENTER SITE THE LOGICAL CHOICE

FOR NEW U.S. MINT

Proposed sites under consideration for the new U.S Mint have been reduced to two, either the Denver Federal Center or the Park Hill Golf Course. The final decision to be made within the next 60 days will be based primarily upon the recommendation of Mrs. Mary Brooks, Director of the Mint in Denver.

The Federal Center site is the logical choice for many reasons:

1. Comparatively less impact from air pollution, according to the environmental study. Air on the East side of Denver is already badly contaminated by industrial emission, odors from the stock yards and gas refineries due to prevailing air currents.
2. Highway network is adequate to handle the significant volume of vehicular traffic. West Alameda and West 6th Avenue will accomodate the traffic where as Colorado Boulevard and Smith Road will not.
3. The Federal Center site, with the Rocky Mountains as a back drop would be more attractive to tourists and create a more favorable impression than the Park Hill site which offers a heterogeneous surrounding area at best.
4. Comparative capital costs would be less, a savings of about \$2 1/2 million to the taxpayers:
 - Land at the Federal Center is already owned. At Park Hill, land would have to be purchased from the Clayton Trust at a cost of \$1.5 million or more.

- The heating plant at the Federal Center can serve the Mint. At Park Hill a new plant would be required.
 - Little, if any highway construction would be required at the Federal Center. Volume of traffic could involve major highway construction in Park Hill.
 - No golf course to revamp at the Federal Center.
5. Land use at the Federal Center would be in keeping with present surroundings. At Park Hill, land presently devoted to public recreation would be reduced since the planned expansion of the golf course to 27 holes would be cancelled out.
6. Lakewood residents and officials want the mint at the Federal Center.

The Mayor and Denver City Council have strongly favored the Park Hill site. So strongly, in fact, that a resolution was passed by city council on January 29, 1974 in favor of the Park Hill site. This action was taken almost one month before the environmental impact study was completed, February 27, 1974. Reasons given supporting the resolution refer to the intrinsic value of having the Mint in the city limits, and the sociological advantage of having 500 additional jobs by 1980 in the Park Hill area rather than Lakewood.

Logic favors the Federal Center. I am sure that Mrs. Brooks would like to know how the majority of people in the Denver Metropolitan area really feel about this important matter.

Elmer Metcalfe

March 26, 1974

Mrs. Mary Brooks
Director of the Mint
Department of the Treasury
Washington, D. C. 20220

Dear Mrs. Brooks:

Attached is a letter from Mr. Elmer L. Metcalfe of Denver in which he states his position on the upcoming selection of a new site for the Denver Mint.

Sincerely,

(Mrs.) Betty Higby
Superintendent

Encl. (1)

cc: Frank Rhea

2380 Ash

Denver, Colorado

March 22, 1974

Mrs. Mary Brooks
Director of U.S. Mint
Delaware and West Colfax
Denver, Colorado

Typed
True copy to my
last letter received
from Mrs. Elmer
Michael

Dear Mrs. Brooks,

Following a review of the environmental impact statement, a question and answer session with Mr. Frank Rhea, and discussions with Mr. John Henry, Mr. Jay Seizer (Denver Planning Office) and Mr. Sam Reed (Denver Parks and Recreation) I prepared the attached statement supporting the Denver Federal Center as the logical choice for the new Mint site.

I have discussed the matter with many people, residents of park Hill and with others who are not. Unfortunately these people, who feel as I do, are unable to find proper media in which to express their views and may well be a "silent majority".

It is clear that a great many pressures are being exerted to influence your decision. Most of them, I fear are politically motivated. Yet, an important decision such as this must be based upon all of the pertinent factors involved, as I am sure you

are aware.

The attached statement has been sent to the media, radio, TV and newspapers. It is an attempt on my part to express the opinion of the people I have talked to, and to present an analysis of the facts. I hope it will be useful to you in your deliberations and that the final decision will give proper weight to the environmental considerations and economic aspects as well as the sociological.

Sincerely,

Elmer L. Metcalfe

MAR 26 1974

U.S. DEPT. OF
SHEEP AND GOAT SERVICE

KWAL PAINTS, INC.

800 WATER STREET • DENVER, COLORADO 80217 • PHONE 303/455-4793

MESSAGE

TO

Col. Frank Rhea

United States Mint

West Colfax Ave & Cherokee

DATE

4/1/74

Dear Col. Rhea —

I know you are considering all the facts possible for the relocation of the Denver Mint, and it must be a difficult job.

However, it seems to me, and I've said this before, it would be a tremendous loss to Denver

REPLY

DATE

if the new facility was moved out of the city limits.

The Park Hill site has advantages in my opinion, and many others I have talked with.

The actual ground in Jefferson County, I realize, does belong to Uncle SAM, but surely, in years to come it will be needed for something important.

Regards, Jack Shapiro

BY

Form N-73 © The Drawing Board, Inc., Box 505, Dallas, Texas 75221

INSTRUCTIONS TO SENDER:

1. KEEP YELLOW COPY. 2. SEND WHITE AND PINK COPIES INTACT.

SIGNED

INSTRUCTIONS TO RECEIVER:

1. WRITE REPLY. 2. DETACH STUB, KEEP PINK COPY, RETURN WHITE COPY TO SENDER.

Ben Moore
688 So. Alkire
Lakewood, Colorado

Frank Rhea
Bureau of the Mint
Project Manager
Denver, Colorado

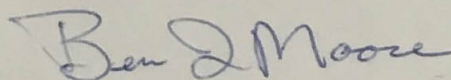
Dear Sir,

It has very recently come to my attention that the Comments made by the Green Mountainside Civic Association at the Lakewood City Council Meeting of Monday, April 8, 1974 were not forwarded to you, due to an error on our Association's part.

The Board of Directors represent the nine hundred homes situated to the Southwest of the Denver Federal Center. And at the Mint Relocation Public Hearing held by the City Council on April 8th we spoke in favor of the Mint being relocated to the Federal Center in Lakewood, but ask that the traffic problem be solved at 6th Avenue and Union, Simms Street corridor and suggested a Cloverleaf at that interchange due to the present and future heavy traffic in that area.

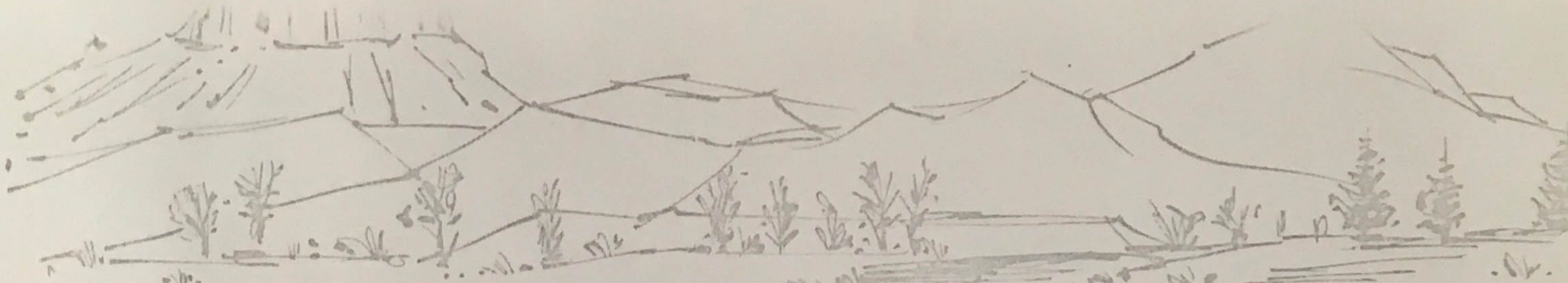
I am enclosing a copy of a letter sent to the Mayor and City Council.

Sincerely yours,



Ben Moore, President
Green Mountainside Civic Association

*Rec'd
5/9/74*



GREEN MOUNTAINSIDE CIVIC ASSOCIATION

LAKWOOD, COLORADO 80228

May 22, 1974

Dear Councilmembers,

The Green Mountainside Civic Association Board of Directors encourages the relocation of the mint from Denver to Lakewood. The Board does also want to strongly encourage that the city and the state work on solving the traffic problems in the planned location as the board feels that this area is already handling more than its capacity.

It should be noted that the vote of the board was 7-3 on this matter.

Respectfully submitted,

Ben Moore, President

SIGN THE PETITION

To get the Mint located on the Park Hill Golf Course at approximately Colorado Boulevard and Smith Road.

Reasons to sign:

- 1) It will improve the area through a nationally recognized tourist attraction.
- 2) It will stabilize, if not increase, property values in the surrounding area.
- 3) Locating the Mint at Colorado Boulevard and Smith Road will add much needed landscaping to land standing vacant.

Having the Mint located in Northeast Denver will give the community a boost economically and environmentally.

For further information call:

Tom McGinity - 355-5928

3310 Albion 80207

THE DEPARTMENT OF THE TREASURY
BUREAU OF THE MINT

Mr Rhea -

Per Roy Cahoon, I
am sending the attached
copy of a letter. Original
sent to Mr. MacDonald;
copy to Mrs. Brooks.

Lynne

William Mc Ferren, Jr.

14600 CRABAPPLE ROAD, GOLDEN, COLORADO 80401

June 24, 1974

Mrs. Mary Brooks
Apartment #1110
Watergate West
2200 Virginia Avenue
Washington, D.C. 20037

Dear Mrs. Brooks:

I am writing you regarding the placement of the Denver Mint. In my opinion there is only one place to put it and that is at the Federal Center, Jefferson County, rather than at Park Hill. We have few enough recreational areas for the minorities as it is, and the golf course at Park Hill is played everyday by the blacks in that area.

Further, as far as acessability to tourists and other people, two freeways border the Federal Center.

Just to identify myself, I have been chairman of the last three Brotzman campaigns and I am a member of the Republican Patronage Committee, State Central Committee and a Precinct Committeeman in Precinct #113 of Jefferson County.

Further, I flew for the Air Force during World War II and spent two of my six years in P.O.W. Camp in Japan. It is my understanding that one of the vacillations in the Federal Center is a threat of a suit by Denver. It is my understanding that the law says the Mint will be at Denver, but that means to most people the Denver area, and I think it would mean the same thing in a court of law.

If the Mint is placed at Park Hill it will almost insure the re-election of Patricia Schroeder, whom, as you know, is a Democrat and a real problem.

continued...

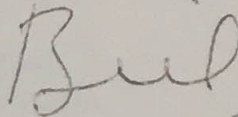
Anyone closely familiar with this area can tell you that the smog conditions in Denver are much worse than anything near the Federal Center, so from an environmental standpoint it will be better to place it at the Federal Center. Further, from an economic standpoint, the ground is already available and the government would have to pay a lot of money to purchase the Park Hill area. Patricia Schroeder could care less about that and her kind of liberal spending Democrats is one of the reasons we have inflation now.

I know you would like to avoid a fight on this subject, but I think there are times when you have to have fights and stand up for what you believe in.

I was questioned by the Japanese for 19 days in Kendari and had the hell beaten out of me because they were trying to find the escape point that we would have to make rendezvous with a submarine a week after we went down. The submarine came in looking for us and fortunately I did not tell them where that point was. I am not trying to be dramatic...all I am saying, Mrs. Brooks, is that I don't think you should back down to Patricia Schroeder.

If you want to check my credentials you can talk to Senator Pete Dominick, Congressman Don Brotzman or Congressman Armstrong.

Kindest regards,

A handwritten signature in cursive script, appearing to read "Bill", with a long horizontal line extending from the end of the signature.

William McFerren

WMcF/sb

Denver, Colorado
February 19, 1974

Mr. Frank W. Rhea
Project Manager
U. S. Mint
320 West Colfax
Denver, Colorado 80204

Dear Mr. Rhea:

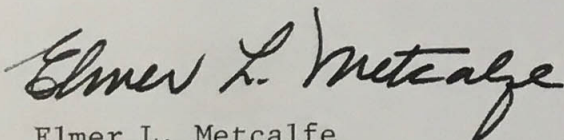
You will recall our recent telephone conversation regarding the Park Hill Improvement Association's interest in any information you can furnish regarding the possible selection of the Park Hill Golf Course as the site for the new Denver Mint.

This is to confirm a request that a copy of the environmental impact study be furnished to the Association as soon as it is available. It should be sent to:

Mr. Charles J. Burns, President
Park Hill Improvement Association
1735 Kearney Street
Denver, Colorado 80220

The Association has appointed a committee to review the considerations involved regarding the Park Hill site. At some date convenient to you, members of the committee would appreciate an opportunity to have a short meeting with you to be sure we have the facts. I will be happy to arrange such a meeting if you will give me a call on 624-1041.

Sincerely,



Elmer L. Metcalfe
2380 Ash Street
Denver, Colorado

copy for Mr. C. J. Burns

Comments on Davis $\Phi_{TC} + \Phi_H$

